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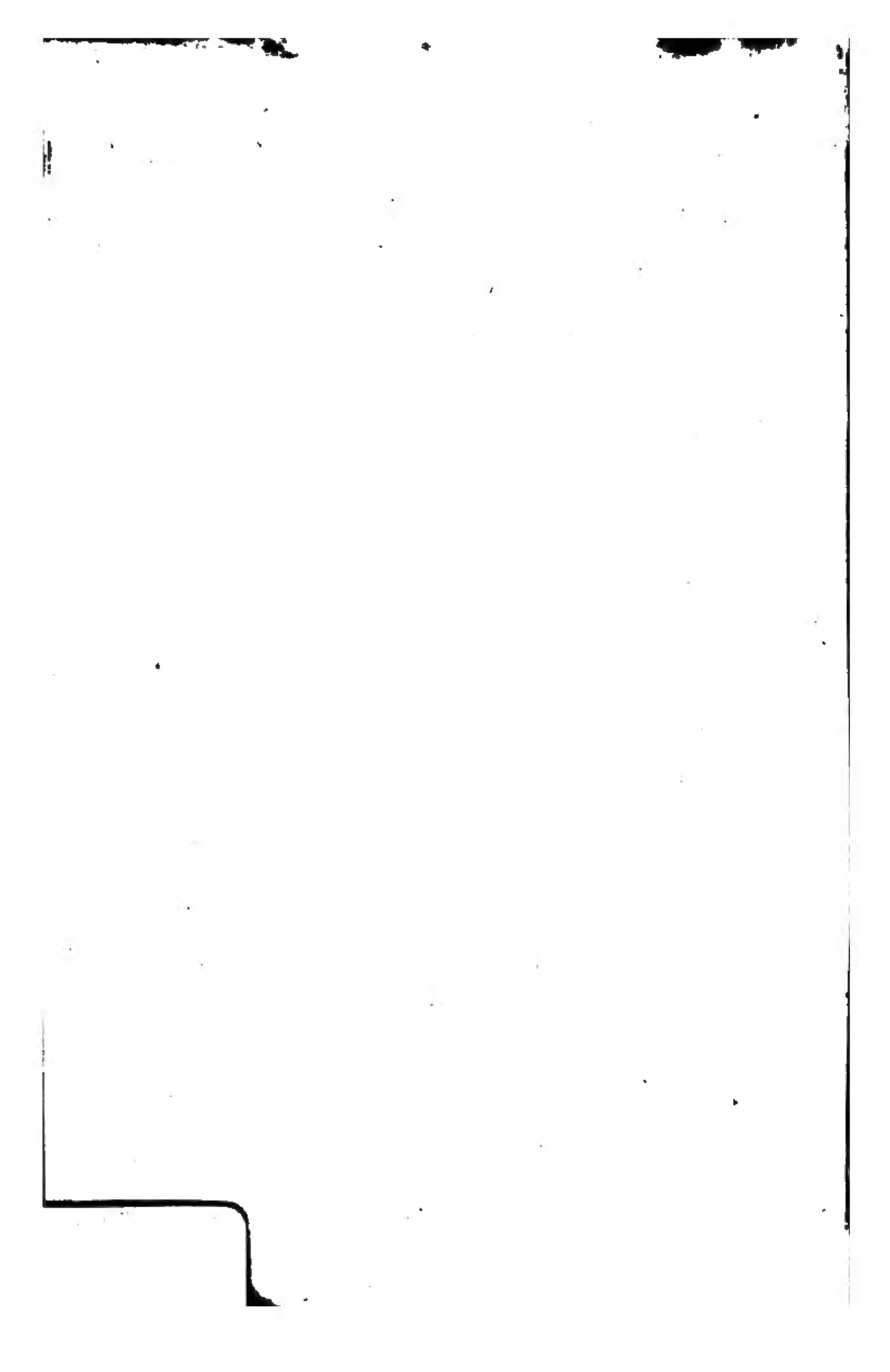
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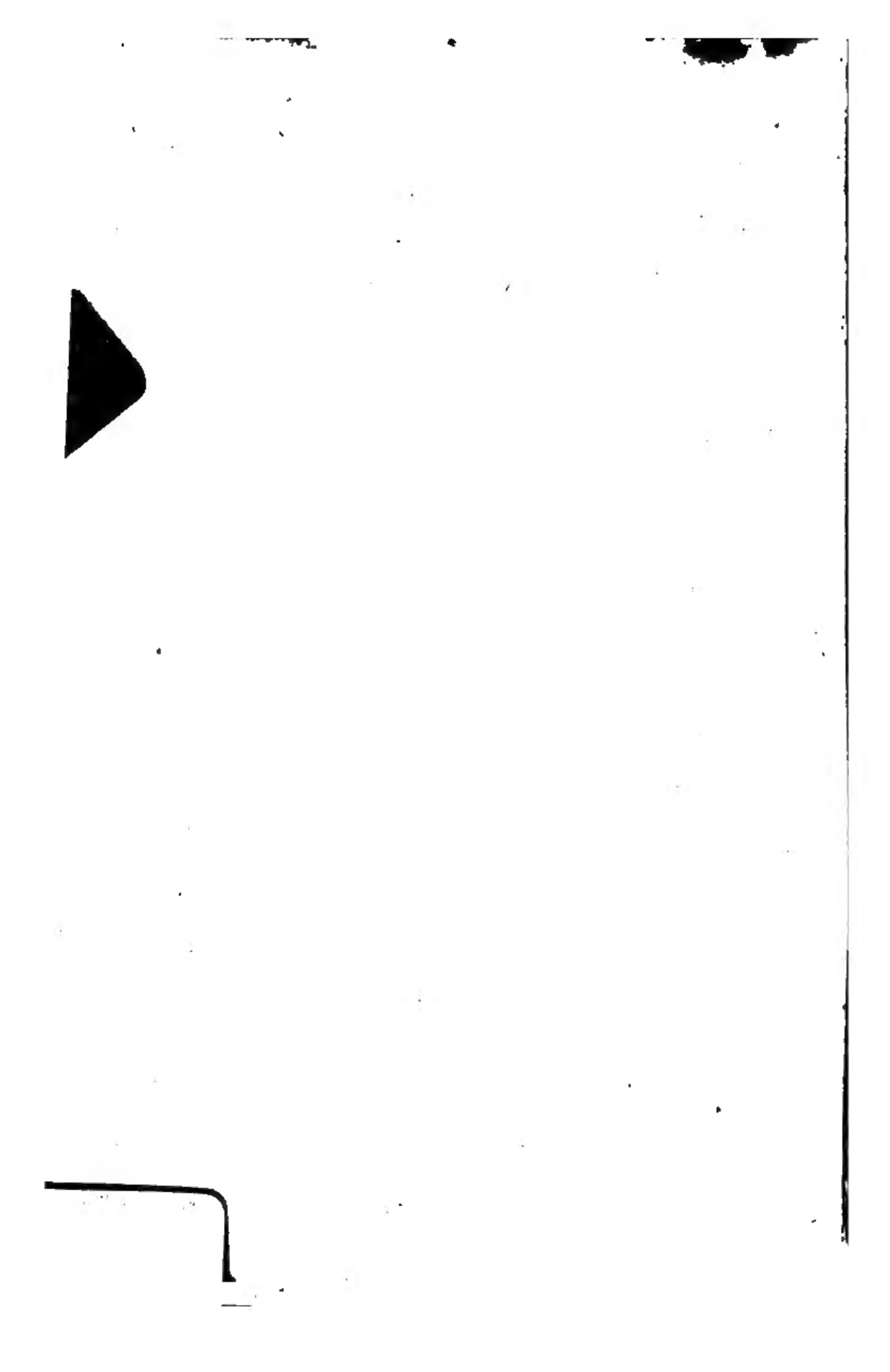
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	PAGE		PAGE
Lecture, observations upon How- ard's,.....	343	Miscellaneous Editorial Notices...	191, 126, 127
Lectures on Materia Medica,.....	91	Montreal General Hospital,...	190, 63
Lens, dislocation of,.....	602, 808	Montreal Eye and Ear Institution,.	63
Leprosy in New Brunswick,.....	28	Monstre, Un,.....	697
Lee, analysis of one hundred cases of cancerous diseases of the uterus,.....	432	Molecular origin of Tissues,.....	412
Lepra and Scaly diseases, patholo- gy of,.....	306	Mount, Dr.,.....	512
Leucocythæmia,.....	409	Mott, Professor,.....	511
Liebig, removal of,.....	385	Morbus Cordis, post-mortem ap- pearances in,.....	459
Lloyd on Medullary Cancer,.....	627	Mysterious case,.....	632
Liver, structure formations and dis- eases of,.....	878	Nature and treatment of Pustular Ophthalmia,.....	52
Lowe on application of friction,...	612	Nelson on Hernia,.....	65
Local treatment of suppurating joints	102	New Brunswick, Leprosy in,.....	28
Low Fees,.....	445	New Lebanon and its Physic Gar- dens,.....	50
Luke on intestinal obstruction,....	225	New operation for Stricture,.....	102
Lungs and Heart, diseases of,.....	16	New mode of taking Cod Liver Oil,.....	640
Lung, Pleuritis and Gangrene of,..	449	News for the Doctors,.....	447
Lupus cured by Cod Liver Oil,.....	492	New Medical Journal,.....	318
McClintock on sudden death in the peurperal state,.....	169, 232	Nitric Acid in Hooping Cough and Asthma,.....	211
MacCallum on Infinitesimal doses,	81	Notice, Canada Medical Journal,	699, 762
MacDonnell on operation for occlu- sion of Vagina,.....	193	Notice to French Canadian Subscri- bers,.....	512
MacDonnell, contributions to Clini- cal Surgery,.....	460, 538	Notice, obituary, .64, 576, 384, 126, 191, 255	
MacDonnell on Vascular Tumour of Female Urethra,.....	385	Notice to contributors,.....	64
MacDonnell, successful removal of a Parotid Tumour,.....	321	Notice to subscribers, .64, 636, 384,	509
Manslaughter, a Surgeon committ- ed for,.....	383	Notice to correspondents,.....	64, 317
Marine Hospital Quebec,.....	510, 575	Obituary notice, .64, 384, 576, 126, 64, 191, 255	
Materia Medica, lectures on,.....	91	Observations on Sanatory Institu- tions of the Hebrews,....	135, 208
Materia Medica, elements of,.....	94	326, 464, 529, 538, 654, 728	
Measures and Weights, French,	320, 448, 128	Observations on symptoms of an undescended testicle,.....	547
Medical Education,.....	184	Observations sur le Plessimètre et La Percussion,.....	77
Medical Statistics of Prisons, by A. Von Iffland,.....	141	Official appointments,....	384, 126, 191
Medical Convention at Toronto, 813,	381	On the bouquet of wine,.....	760
Medicus, reply to Dr. Howard's 'Review',.....	469	Operative Surgery Illustrated,....	544
Medicus, observations on Dr. How- ard's Lecture,.....	343	Operation for Stricture,....	102
Medical Bill, by Dr. Laterriere,...	444	Operations for impassable Stricture of Rectum,.....	105
Medication of Larynx, topical,....	377	Our prospects,.....	124
Medical Lexicon,.....	95	Outlines of Chemistry,.....	650
Medicines, endosmotic action of,...	117	Oxygen Gas as an antidote to An- æsthetics,.....	667
Medicine, St. Lawrence School of,...	64	Parotid Tumour, successful removal of,.....	321
Medical Journal, Canada,.....	59, 699	Parturition after ovariotomy,.....	47
Medical Journal, B. A. Medical and Physical,.....	61	Pathology of Lepra and Scaly dis- eases,.....	306
Medical Jurisprudence of Gun Shot Wounds,.....	693	Pathological cell development,....	413
Medullary Cancer of the Eye, .627,	629	Peltier, cas de Fracture,.....	71
Merriman on artificial dilatation of es uteri,.....	378	Pelvic Abscesses,.....	110
		Peresqui-nitrate of iron in leprosy..	713

	PAGE		PAGE
Patch on internal hæmorrhage,...	405	Bond's Dental Medicine,.....	545
Pericarditis, acute,.....	396	Lectures on Materia Medica by	
Puerperal state, sudden death in, 232, 169		Beck,.....	91
Physicians and Surgeons, College of, 245		Illustrated Manual of Operative	
Physiological action of the fifth pair		Surgery,.....	94
of nerves.....	763	Elements of Materia Medica,	
Plaie Pénétrente du poulmon,.....	669	by Pereira,.....	95
Plessimètre et la Percussion,.....	77	Medical Lexicon,....:	95
Polypi of the Ear, treatment of,...	175	Sweet on diseases of the Chest,..	218
Points in Medical Jurisprudence,..	693	Walsh on diseases of the Lungs	
Poisons, elimination of,.....	183	and Heart,.....	618
Poisoning with Oil of Tansy,.....	439	Principles of human physiology.	741
Post-mortem appearances in a case		Druggist's general Receipt Book.	744
of Morbus Cardis,.....	459	Sanatory Institutions of the He-	
Practical Medicine, cases in, ... 526, 645		brews, ... 185. 206, 226, 464, 529,	
Prevention of Salivation,.....	431	589, 654, 728	
Prescriptions,.....	64	Sang, transfusion du,.....	84
Pneumonia, rules for bleeding in,...	185	Sanguineous Uterine Tumour,....	339
Pneumonia, Catarrhal and Lobar of		Saliva, the,.....	415
Children,.....	489	Saturine Ptyalism,.....	342
Prisons, Medical statistics of,.....	141	Salivation, prevention of,.....	431
Procès intenté à un Médecin,.....	240	Saunders, on contents of Cyst in Ra-	
Protest, copy of,.....	248	nula,.....	430
Proceedings of meeting of German		Sewell, case of Cerebral Disease,...	257
Naturalists,.....	605	Sewell, case of Poisoning by Sul-	
Principles and Practice of Surgery, 359		phuric Acid,.....	131
Proximate cause of Gout,.....	478	Sheriff on an Anomalous Epidemic,	7
Professor Mott, election of,.....	511	Sichel on Congenital Epicanthus,..	496
Ptyalism, saturine,.....	342	Simpson, Dr.,.....	511
Pure Chemicals,.....	64	Physician's Pocket Dose and Symp-	
Pus, sugar in,.....	4	tom Book.....	744
Pus Corpuscles, development of,...	377	Staphyloraphie chez les Enfants,...	081
Pustular Ophthalmia,.....	52	Stratford on False Aneurism,.....	641
Pyramidal Cataract,.....	496	Statistics of Prisons,.....	
Quackery,.....	635	Statistical Chart of Canada,.....	126
Quain on complicated Hare-lip,...	475	Strangulated Hernia,..... 418, 420, 421	
Quain, white cells in the blood,...	670	Staenglmayr, cas des accouchements,	46
Quebec Marine Hospital,..... 575, 510		Stœber, de l'oblitération du Sac La-	
Quinine, Hospital Sulphate of,....	759	crymal,.....	181
Remarks on action against Dr. King, 245		Stethoscopic indication of separa-	
Remarks on Dr. Nelson's Prison Re-		tion of Placenta,.....	296
port,.....	699	St. Patrick's Hospital, .63, 188, 576, 316	
Remarks on Dr. Marsden's Cholera		St. Lawrence School of Medicine,..	64
Report,.....	701	Shatford on the arrest of Hæmor-	
Removal of Liebeg,.....	384	rhge from bleeding arteries.....	716
Remmiscences of the Siamese Twins, 457		Stricture, new operation for,.....	102
Roux on results of ligature of large		Structure and Functions of the Liver	373
arteries,.....	619	Subscribers, notice to, .64, 636, 384, 509	
Royal Medical and Chirurgical So-		Substitute for Mercury in Syphilis.	727
ciety,.....	432	Sugar in the Urine of the aged,....	491
Rules for bleeding in Pneumonia,..	188	Suppuration Bleue, etude expéri-	
REVIEWS.		mentale sur,.....	107
Analytical Compendium, by Neil		Suppurating Joints, local treatment	
and Smith,.....	276	of,.....	102
On the Fallacy of Homeopathy,.	347	Surgeon committed for manslaughter	383
Graham's Elements of Chemistry, 354		Surgical operation for retention of	
Pirries Principles of Surgery,...	359	Urine,.....	276
Gregory's Outlines of Chemistry, 658		Syme, on club foot,.....	425
God in disease, by Duncan,.....	542	Syme, on wound of radial artery,..	426
Human Phisology, by Dunglison, 543		Syme, on excision of Superior Max-	
Operative Surgery illustrated,..: 544		illary Bone,.....	427

la méthode indienne pour réparer les difformités partielles, pense que lorsqu'il s'agit de son extrémité ou de ses ailes, il est de tailler un lambeau aux dépens des joues ou des lèvres."—*Chirurgie Plastique*. Tome premier, p. 256.

3. *Successful Geno-plastic Operation.*

———, aged 45, applied to me for advice concerning the left cheek, which was evidently a genuine specimen "Cancer of the face." It had commenced seven years before as a scaly growth, about half an inch from, and on a level with the commissure of the lips—on this a scab used to form, and removed accidentally. When once the ulcer was formed, it had no disposition to heal, and though its appearance would become more or less stationary for several months at a time, it would recommence spreading, and at last extended to the size of the palm of the hand. It was not painful at first, but had latterly become so; it bled freely, and the discharge was scanty, and not offensive. Though superficial, on close examination, the entire thickness of the cheek was found engaged in the disease—the mucous membrane being quite healthy in appearance. The commissure of the lips was free from disease, although quite close to it, and on inquiry ascertained that it had never ulcerated nor become fissured. There was enlargement of the glands under the jaw, and the patient's general health was quite good. Having already applied to various medical men for relief, and meeting with disappointment from all remedies tried to him, I had little difficulty in persuading him to have recourse to me; for that purpose he entered St. Patrick's Hospital as a patient.

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ORIGINAL COMMUNICATIONS.

ART. I.—*Case of Ectropium of the second variety of the Upper Eye-lid, treated successfully by Plastic Operation, after the failure of the operation recommended by Mr. Wharton Jones and Mr. Wilde.*
By HENRY HOWARD, M.R. C.S.L., Ophthalmic and Aural Surgeon to St. Patrick's Hospital, Surgeon to the Montreal Eye and Ear Institution, Lecturer upon Ophthalmic and Aural Surgery, St. Lawrence School of Medicine, Montreal.

L. DE'M., aged 17, presented himself at the Montreal Eye and Ear Institution, on the 17th of November, 1851, with an affection of his right eye-lid, of thirteen years' duration.

The upper lid of the right eye was perfectly everted through its whole extent; the ciliæ were intermingled with the hairs of the eye-brow, in consequence of the close adhesion between the ciliary edge of the lid and the edge of the orbit. In addition to the cicatrix in this part, there was another dense cicatrix at the external canthus of the orbit, where a portion of the integuments and cellular tissue was firmly adherent to the external orbital angle of the os frontis. The upper edge of the tarsal cartilage, or that portion united to the ciliary ligament, occupied the place that the ciliary edge occupies when the lid is in its normal state. The conjunctival surface of the cartilage was thickened and villous, presenting a fungous appearance. The lid being in this state, he could not, as a matter of course, cover the eye-ball with the lids, and consequently the sclerotic and corneal conjunctiva was inflamed and thickened from exposure to atmospheric air, and particles of dust. The tears flowed frequently over the cheek. As this case was one of ectropium from cicatrix, and shortening of the lid, I endeavoured to remove the deformity by means of the operation recommended by Mr. Wharton Jones. The patient was advised to rub the lid constantly for a few days, for the purpose of loosening any cellular tissue that remained. After cutting off

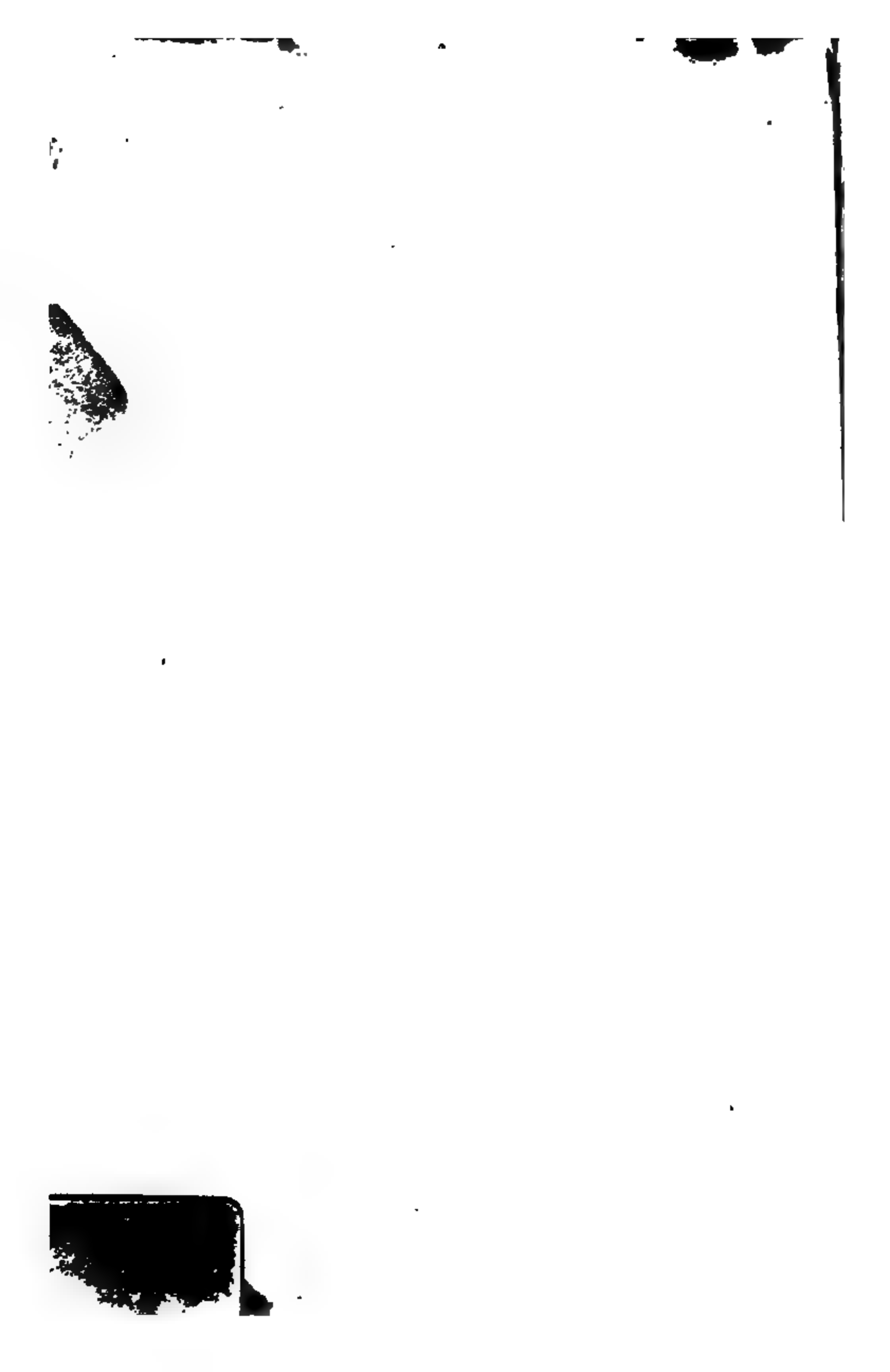
position with the ciliary edge of the lower lid, and to secure it in this position, there were three ligatures passed through its ciliary edge, which ligatures were fastened under the chin with strips of adhesive plaster. The incision extended from the external to the internal angle of the orbit, so that when the lid was placed in the position just mentioned, there was a large wound of a semilunar shape, extending from the eye-brow to the ciliary edge of the tarsal cartilage, and from the external to the internal angles of the orbit. To fill up this gap, I made a straight incision through the integuments, which reached from the outer angle of the eye-brow, to within about an inch of the angle of the inferior maxillary bone. I then made a semilunar incision, which extended from the termination of the straight incision to within about the sixth of an inch to the lower part of the surface that was to receive the new portion. The semilunar portion of integuments situated between these wounds was dissected off the cheek, beginning at the outer portion of the flap, till I came to that point where the semilunar incision terminated. The flap was then twisted over the surface it was designed to fill, and secured in its new position by simple sutures, of which there were nine, the first at the internal angle of the orbit, then four at the upper edge of the flap, and four at its lower edge. As soon as this was done, the wound in the cheek was drawn together by sutures. Tepid water dressing was applied. The patient was then placed in bed, directed to be kept perfectly quiet, and on low diet, the water dressing to be renewed every half hour. He was also to take two ounces of the following mixture every two hours:—

Cream of Tartar, two drachms.

Tartar Emetic, two grains.

Water, sixteen ounces.

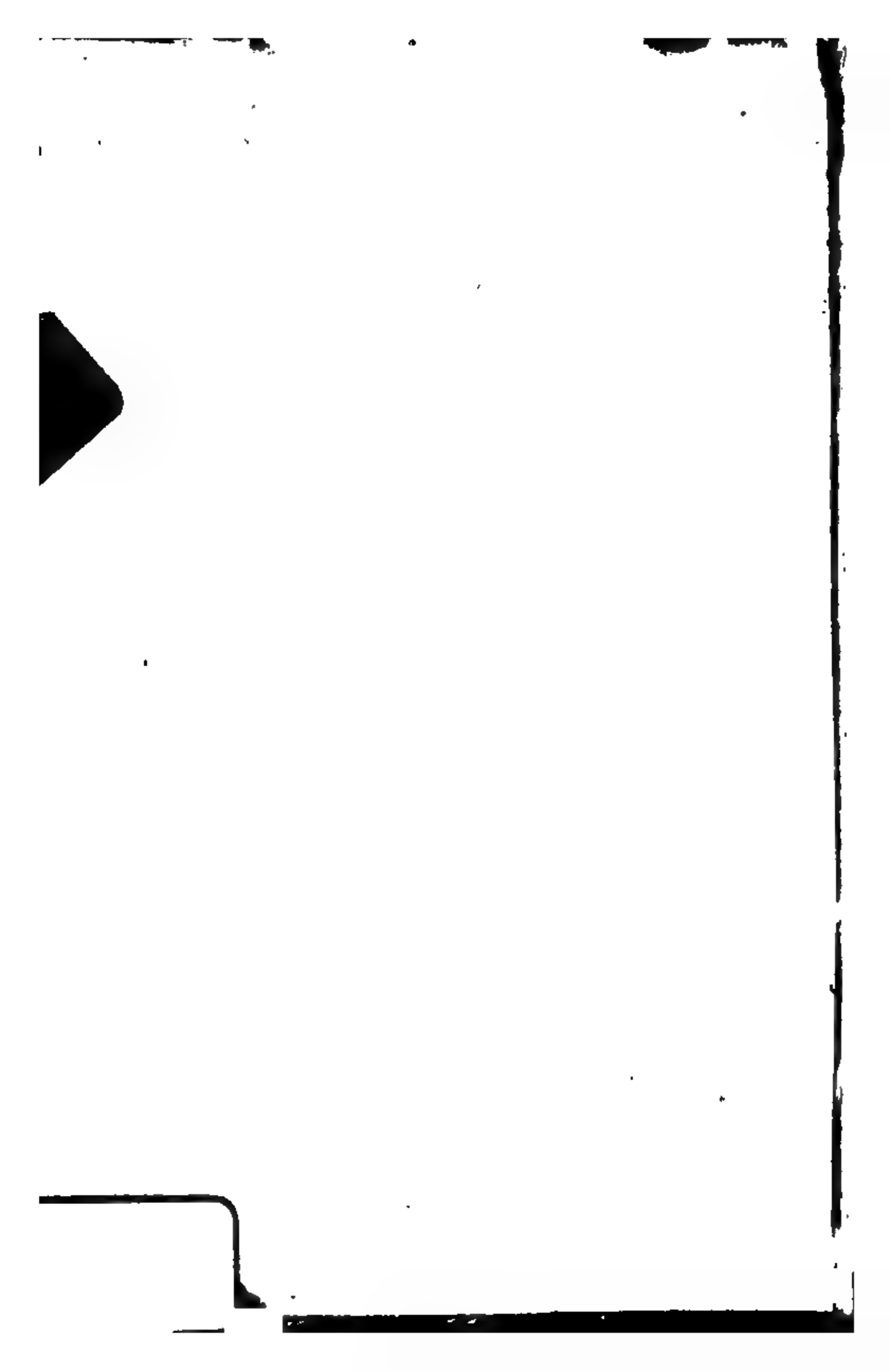
During the performance of the operation very little blood was lost. When more than one half the flap was raised, I cut through a small branch of an artery, then, at the suggestion of Dr. MacDonnell, I dissected much deeper than I was at first doing, for the purpose of keeping this artery in the flap, which, I consider, tended much to the successful result of the operation. I may here remark that, although I endeavored to leave as much integument as was possible to the ciliary edge of the lid when I was detaching it from the edge of the orbit, yet, so completely was it adherent, that it was with difficulty I could preserve as much as would hold the sutures. The night following the operation, the patient spent tolerably comfortably, and on the next day, the parts looked well and healthy, and it was quite evident that adhesion had set in: the temperature of the flap was the same as that of the integuments on any other portion of the face. The same treatment was continued. On the



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complained of pains over his whole body. At 11 A. M., he vomited a second time, and almost immediately became insensible. I saw him for the first time at 2 P. M. He was very restless, moaning loudly, and twisting himself from side to side. Could not speak; eyes shut, pupils contracted; countenance very pale; pulse slow and weak; skin cold. I ordered hot applications to the body, and mustard poultices to his epigastrium and extremities, and for want of something better administered an enema of pepper infusion. He swallowed a small portion of it with brandy, with much difficulty, there being great difficulty of deglutition. During this time, he seemed to have several slight convulsions. In three or four hours, reaction took place, and I raised him up into a sitting posture and took away about twelve ounces of blood. It ran well with a full strong stream. No improvement taking place and the pulse becoming weak, I stopped the blood. I next administered two drops of Croton oil: which were repeated twice. During the night, I gave him an enema of senna, but his bowels were not opened until the morning, when he had a free involuntary motion. No improvement took place, his body perspired freely all day, and he died at 5 P. M., thirty hours after becoming insensible. I requested an examination of his body which was not granted. His case I considered at the time, as congestion of the brain, brought on by exposure to intense cold, but now, I am fully of opinion, that it was one of those anomalous cases which soon occurred in rapid succession.

CASE 2ND.

William Lumsden, aged 21, a blacksmith, was in good health, and attended the funeral of John McWilliams, on the 17th December, slept soundly all night, and rose at 5 A. M., 18th December, to commence his work. While sitting at the stove, soon after dressing himself, he was suddenly seized with violent shivering, great sinking and prostration. Went to bed immediately, but felt so weak as to be unable to undress. Rigors continued four hours, when great heat of skin and severe headache followed. Saw him at 12 noon. Skin very hot, face of a deep purplish red colour, pulse 140, tongue parched. Answers questions with much reluctance and apparent difficulty, and is unable to turn himself in bed. Said he had great pain in forehead and along the course of the sagittal suture, complained also of severe pain in his ankles and knees. Gave him Pulv: Ipecac: and left him powders of Mass: Hydrarg: Pulv: ant: ana gr. v. Sulph: Potass: gr. x. One every six hours.

19th.—Feels better, slept more, but has perspired freely, pain still severe in head, pulse 96, face still deeply suffused, strength still much

prostrated, thirst great. Emetic operated slightly as a vomit, but acted also as a purgative. Legs covered with blueish red blotches, as if he had been kicked. Ordered a dose of senna and salts to be given immediately; of Chlorid Hydrarg: Pulv: ant: ana gr. iv. Sulph: Potass: gr. x. ft. pulv. iii. One every eight hours. Effervescing draughts of carb: ammon: and vinegar to be taken ad libitum.

20th.—Saw him at 10 A. M. Bowels have been freely opened, feels much better, slept a little, headache gone, pulse 72, still weak. 5 P. M., received a message to visit him again, as the disease had returned. Did not go, but sent a lotion of mur: ammon: vinegar and alcohol, to be applied to his head and the following powder: of Sulph Beeberin, gr. ii Pulv: ant: Mass: Hydrarg: ana gr. v. Sulph Potass gr. v. sig. To be taken when perspiration commences.

21st.—Saw him at 9 A. M., states that at 2 P. M., yesterday, he was seized as before with rigors and rending headache. Perspiration came on about 7 P. M., which caused relief, thinks the lotion relieved his head. Feels now much better, face still flushed and tongue furred, pulse 72. On examining his legs, found an elevation in the centre of each spot like a small pustule. Ol: Ricini ℥i: stat. R: Pulv: ant: sulph: Potass: gr. v. Sulph: Beeberni gr. i. ft. tal: vi, one every eight hours.

22nd.—No return of symptoms, feels much better, the pustules are now hard tapering, slightly elevated scabs of a dark colour. He continued to recover rapidly, and was well by the end of the week, although the marks on his legs were still very apparent.

CASE 3RD.

Matilda McWilliams, a daughter of John McWilliams, whose case has already been related, aged 14, in good health, was seized while foddering the cattle at 10 A. M., the 10th December, with shivering and debility. Came into the house and went immediately to bed, saw her at 3 P. M. Her nervous energy seemed to be almost entirely prostrated, could not move herself in bed, answered questions with much reluctance and difficulty. Pulse very rapid and fluttering. Had a strange gasping manner of breathing, like a person dying. Complained of headache, stiffness in her neck, sore throat, difficulty of swallowing, and pains in her joints. On examining her throat, found it red, with uvula much relaxed. Gave her half a drachm of powdered Pulv: Ipecac: which acted feebly in an hour and a half; she seemed relieved by its operation and then became moist. Left the usual powders of Pulv: Ant: Hydrarg: and Sulph: Potass: one every six hours.

20th.—Slept little all night, was occasionally delirious. Feels better,

still gasps while breathing, pulse 96, weak. Still unable to move herself, a few red spots on her arms and legs, one large red spot on her temple. Effervescing draughts of carb: ammon: and vinegar ad libitum.

21st.—Slept well, pulse 80, strength returning, left eye surrounded by an erythematous ring, for which I gave her a lotion of mur: ammon: . Sulph: Beeberin gr. i. Pulv. ant gr. iii. Sulph: Potass: gr. x.ft. tal. vi. say one every eight hours.

22nd.—Still improving, powders continued. The health was entirely restored in a week.

CASE 4TH.

Mary Anderson, aged 5, a large healthy girl, seemed to be labouring under a slight cold on the evening of the 21st December. Towards morning was restless, and at 9 A. M. her father gave her an emetic of lobelia. Not operating well, he repeated the dose. She vomited, and almost immediately became insensible, and had slight convulsions in rapid succession. Saw her at 2 P. M. Convulsions had continued to recur every half hour. She was lying on her back perfectly motionless, her eyes open, and she was unable to articulate a word. Pulse at least 185 per minute, could scarcely be counted. Skin hot, face flushed, arms, legs, face, and neck covered with small red spots. On raising her from the bed, she moaned greatly, and eagerly clung to the clothes as if afraid of falling. Tart: ant: gr. ii. aq. ʒi a teaspoonful every ten minutes. She took the whole quantity without vomiting. I now gave her ʒi Pulv: Ipecac. In an hour afterwards, vomiting not having taken place, I dry-cupped her with a tumbler on the upper part of the shoulder, when almost immediately, on the application of the tumbler, she vomited a large quantity of bilious fluid. Pulv: Ant: Chlorid: Hydrarg: aa. gr. v. ft. tal. iv. sig. one every six hours until the bowels are opened.

23rd.—Her father called to state that it was unnecessary for me to visit her as she was much better. That at 10 P. M., last night, she began to speak. That she raved much all night, slept little, and had no return of the convulsions. Her bowels had been opened freely. Powders continued occasionally, and Bi-tart: Potass: for drink.

26th.—Saw her at 12 midnight. Arms and legs covered with black horny elevated tapering scabs. Pulse 120, face flushed; is frequently delirious. Gradually recovered in about ten days from this date.

CASE 5TH.

Agnes McFaul, aged eight, stout and healthy, complained on the evening of the 7th February, of nausea. During night, was uneasy and

vomited. In the morning did not rise, but her parents thought little was the matter. During the forenoon, she complained of her head, black spots came out all over her body, and at 1 P. M., she became insensible. Her whole body became of a livid colour, and she died at 4 P. M. I saw her three hours after death. The whole body was livid with black spots dotted all over. A sister of her's had an attack of the same disease on the 28th December, but recovered in a few days.

CASE 6TH.

Janet King, aged 8, a very large fine looking and healthy child, went to school on the morning of the 10th January, in perfect health, was suddenly seized at 12 noon, with nausea and vomiting, prostration of strength, and was observed to look very pale. Was taken home, and put to bed. She vomited freely. Her skin became very hot, and during the night, she was very restless and slept little. She complained of her head, and at 10 A. M., she became totally insensible, and her body became entirely powerless and limber. Saw her at 7 P. M. She was lying on her back, her eyes half shut, pupils widely dilated and insensible to light. When spoken to, made no answer, a few red spots, but very faint, on her arms. Cupped her on the nape of the neck : she seemed partially roused by the operation ; I administered a purgative enema and left her several doses calomel, to be taken every six hours. Being unavoidably absent from home, did not see her again until the 18th. During the past week, she spoke but was almost constantly delirious, seemed to hear, but could not see. Her bowels had been freely opened, but of course her stools were passed involuntarily. Applied blisters to the nape of neck and top of head. Calomel powders continued. Pulse 120.

January 20th.—Saw her at 2 P. M. Still insensible, blisters have risen well, pupils sensible to light, contract slightly. On the 18th, I discovered that the left hip and part of the back was covered with an inflammatory patch, and at one side was a large pustule full of matter. She died at 5 P. M., on the 21st.

Examined her head at 2 P. M., next day. On removing the skull cap, I found all the veins of the dura mater tinged with blood. The surface of the brain also was covered with large veins. On cutting into the brain, I found it full of large bloody points, showing a remarkable degree of congestion in the whole organ. On cutting into the ventricles, a large quantity of water escaped, I should think about an ounce and a half. I found also a quantity of a semifluid yellow substance adhering to the base of the brain and cerebellum, like pus. Such an appearance, I never before observed in any previous dissection of the brain. I made no examination of the other viscera.

ART. V.—*Acute Idiopathic Tetanus occurring in a young child, with Post Mortem appearances.* By G. E. FENWICK, M. D., Lecturer on Materia Medica, St. Lawrence School of Medicine, Physician to the Montreal Dispensary.

ON Saturday afternoon, the 9th of August, 1851, I was requested to see Robert Simpson, a boy aged 5 years 6 months, who had been labouring since the previous Thursday morning under the following symptoms:— He was at first noticed to carry his head stiffly, and when he looked to either side, he would turn the whole body. Throughout the day, he was noticed to be dull, and excited, alternately; the skin was hot and dry, he refused his food, and he occasionally complained of his throat being sore, and also of pain in his belly. On Friday morning, he seemed better, but as his bowels had not been moved the previous day, his mother gave him a dose of castor oil. On Friday afternoon, while at play in the yard, he was seized with a convulsive spasm, which threw him on his back; the mother told me, that, being alarmed, she went out and desired him to get up, he said he could not. When she took him up, he appeared to be convulsed, and became stiff and rigid. These convulsive attacks recurred several times that afternoon, and became more frequent during the night. The following morning, (Saturday,) the parents determined to seek medical aid. The father noticed the peculiar expression of the features, and also that the jaws were closed; this alarmed him, and he requested me to see the child.

Upon entering the room, I was struck with the peculiar appearance of the features: every muscle was in "tonic spasm," this gave a hideous expression to the countenance, the teeth were partially exposed by the drawing of the mouth to each side. The *alæ nasi* were distended and drawn upwards, the eye-lids were half closed, but the eyes were unaffected, he was enabled to roll them about with perfect ease; the jaws were partially closed, and any attempt to open them, would bring on a spasm, and the teeth would be brought together with a snapping noise. He lay on his back, the limbs extended. Upon my attempting to bend his legs, the muscles resisted, he could, however, perform flexion and extension with impunity. The breathing was short and hurried, pulse 160, weak and fluttering, the whole surface bathed in profuse perspiration. Deglutition was performed with comparative ease, he swallowed beef tea which his mother had been giving him at intervals since the morning. About every 10 minutes he would be seized with spasm of the muscles of the back, thighs, and legs, at such times he would rest on the occiput and heels. During the spasm, he complained much of pain at the præcordium, and would call out to his father to press on his belly, which seemed to give him ease. A blister was ordered to be applied to

the whole length of the spine, as his bowels had not been moved, although the castor oil had been repeated; four grains of calomel were given, to be repeated in four hours if necessary. Chloroform was also ordered to be given by inhalation, whenever the spasms recurred.

I returned in two hours, accompanied by my friend, Dr. Gibb; we examined the whole body carefully, but there was no sign of injury, nor had he received any blow; all the symptoms above described were as marked as before. He had had two inhalations of chloroform; after the first, the little fellow remained in a tranquil state, apparently sleeping for fully 15 minutes.

Visited patient again at 9½ P. M. There has been considerable abatement in the symptoms, the spasms recur at longer intervals, and are less severe; during the last half hour he has had no spasm. After the third or fourth inhalation of chloroform the trismus seemed to abate, the father said he opened his mouth wide enough to protrude his tongue. The calomel had operated twice, the stools were passed in bed. The breathing was less hurried, pulse 110, fuller. I ordered the chloroform to be continued, and also that he should receive nourishment at intervals in the shape of beef tea.

About midnight, the spasms came on with re-doubled violence, and he died at 2 A. M. Death occurred during a severe fit.

Post Mortem.—Assisted by my friends, Drs. R. P. Howard and Wright, I proceeded to make a post mortem examination, 30 hours after death. The muscles were perfectly relaxed, there was not the slightest "rigor mortis." The whole surface was covered with petechial spots. On carefully opening the spinal canal, a clot of blood was discovered lying upon, and completely surrounding, the meninges of the cord, the clot extended from the sixth cervical to about the tenth dorsal vertebræ. The meninges were much congested. On opening into the dura mater, a small quantity of serum exuded, not more than is usual in a state of health. There was no disease of the vertebræ.

Remarks.—This is a case of some interest, inasmuch as the symptoms during life did not indicate pressure on the spinal marrow. Cases of effusion of fluid blood between the dura and pia mater, are mentioned by Jessey: he found also, the vessels of the pia mater gorged with blood. He, however, considers these cases as the result of the rude use of the chisel and saw. The petechial spots, I have no doubt, existed early in the disease, but they escaped notice during life, the other symptoms were so striking as to fix my attention exclusively; however, they showed an evident hæmorrhagic tendency. It would have been interesting to search further, but I was prevented by the parents, from whom I obtained permission with difficulty, to examine even the state of the spinal cord.

73 Craig Street.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

A Practical Treatise on the Diseases of the Lungs and Heart, including the principles of Physical Diagnosis. By WALTER HAYLE WALSH, M. D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine, in University College, London. Physician to University College Hospital, &c.

THE recent brilliant discoveries that have rewarded the diligent student in the fields of Organic Chemistry and Histology, have had the effect of diverting from the subject of diseases of the Chest, much of the energy and zeal that otherwise would have been devoted to this interesting, and as yet, unexhausted branch of medicine. For this fact, many reasons may be assigned, amongst which, may be mentioned the possibility of junior practitioners acquiring distinction in the two former departments, without being attached to any large Hospital, or without possessing a wide range of private practice; whereas, it is necessary, that the practitioner should have materials derived from one or other of these sources, to make any advance either in the diagnosis or pathology of thoracic affections. Another reason that may be offered as explanatory of this neglect, is the *inherent difficulty of the subject*. How common to hear physicians declare, that they understand physical diagnosis sufficiently well for *practical purposes*, by which they mean, that when a cavity is the size of the fist, and the patient is being run down with hectic, they can diagnose phthisis, and peradventure indicate the lung affected. But the *truly practical* auscultator well knows how difficult it is to detect the first indication of tubercular deposition—how closely many diseases resemble one another in their physical signs, and how essential to correct diagnosis, that these signs, their modes of invasion, mutations, antecedents, combinations and terminations, should be carefully considered. It is not on the mere detection of physical signs that *diagnosis* is established, but on the *reasoning* based on these signs—the capability of detecting sounds and the faculty of reasoning accurately upon them, are not always possessed by the same individual, yet their coexistence is essential to accuracy of diagnosis. Dr. Walshe, though one of the first to master the difficulties of Histology, and to lay before his brethren, the investigations of Müller in malignant diseases, which his own valuable observations went to support and confirm, has ever kept in view, the advancement of thoracic pathology and diagnosis, and in the treatise before us, we have the result of his matured experience. The principal part of it, is a reprint, with little variation, of his work, on the *Physical Diagnosis of Diseases of the Lungs*, published many years ago, and

which has been very favourably received by the profession. But it is not to his Treatise we would refer for proof of his intimate knowledge of this subject, it is to his *published Clinical Lectures* we would direct our readers' attention. In them he will find evidences of the combination of accurate observation and correct reasoning—the true manifestations of the *Mens Medica*.

In the space allotted to us, we find it impossible to give more than a general and very brief notice of this valuable work, and to direct our readers' attention to some of the practical points brought forward by its author.

In the article on Expansion of the Chest, we remark that Dr. W. does not point out *bulging* as a sign of Incipient Phthisis, which he asserted it was, in the first edition, upon the verbal communication of Dr. Chambers of London*—and this statement was copied and repeated, in a hundred different forms, by subsequent writers, until refuted by Dr. MacDonnell of this City, in the pages of the *British American Medical Journal*.

In his chapter on Percussion, Dr. W. discusses the relative merits of Pleximeters, and Percuteurs, and notwithstanding that some modern Clinical teachers applaud their hammers and other instruments, we have ever inculcated upon students the necessity of using their fingers for this purpose. In practice, we must go about without our hammers, ivory and India rubber pleximeters, graduated callipers, lung stethoscopes, heart stethoscopes, and stethoscopes for arterial, and venous murmurs, spiro-

* "In a conversation upon this subject, which I recently had with Dr. Chambers, I learned that he has made the interesting observation that an *enlargement* of the antero-posterior diameter of the summit of the chest, (and consequently, I presume, some amount of visible bulging) is discoverable in the early stages of some cases of Phthisis:—*The Physical Diagnosis of Diseases of the Lungs*. p. 167.

The following are Dr. MacDonnell's observations on this subject:—

"I am well aware, that on the authority of a verbal statement of Dr. Chambers, of London, that some writers—amongst others, Professor Walshe—have alluded to an elevation or bulging forward of the infraclavicular region, as a sign of incipient phthisis; but as I have anxiously looked for this sign for several years, without in one single case observing it, I can only account for the discrepancy, by supposing, that in Dr. Chambers' cases, both sides were affected, and the atrophy being better marked on the side, where the least physical traces of incipient phthisis were observed, the opposite infra-clavicular region presented an appearance of *comparative* fulness or bulging, well calculated to deceive; for I have not unfrequently remarked [and had recently an opportunity of pointing out to my class at the Hospital] the fact, that in incipient phthisis, we may have marked atrophy of the infra and supra-clavicular spaces of one side, with comparative dulness and feebleness of respiratory murmur, whilst on the opposite, there may be no atrophy, scarcely any dulness, with a harsh respiration, gradually becoming accompanied by a "crumpling sound," dry crackling, and then (as in the case just alluded to) sibilant and muco-crepitating râles—yet the condition of the opposite lung may remain as when first examined. It is only in this way, that I can account for the striking anomaly said to have been observed by Dr. Chambers."

meters, &c. We must learn to percuss with our unaided fingers, and auscultate (frequently) with the naked ear, and as we have invariably instructed our pupils to dispense with all extraneous aid, we shall not now occupy our readers' time with a detail of arguments *pro* and *con*, for the use of these various instruments.

Our author devotes but one page to a sign which has recently attracted a good deal of attention, but which our own clinical researches have induced us to estimate as of little value; we allude to a *sense of resistance* upon percussion. We have carefully studied this sign, and consider it so useless for diagnosis that for some time past, we have ceased to note it, and indeed our author seems to solicit a study of it, apparently more out of deference to the opinions of others, than from his own experience of its importance.

In the chapters on "auscultation," "succussion," &c., we find proofs of the usual care, and research displayed by Dr. Walshe in the accumulation and arrangement of his facts, and to the work itself we must refer the reader for confirmation of this statement.

We pass over much valuable matter in the article on Pleurisy, merely remarking that our author quotes Dr. MacDonnell's observations on "Pulsating Empyema," to whom, he gives the credit of having first described this rare form of the disease, and directs to it the particular attention of auscultators.

He also notices a "peculiar crepitus" occurring in the lung after the absorption of pleuritic effusion, liable to be mistaken for a sign of pneumonia, likewise pointed out for the first time by Dr. MacDonnell, whose theory for its formation, Dr. Walshe adopts, in common with the best auscultators, including Dr. Blakiston. Indeed, the close resemblance between the views of this latter physician and those of the discoverer of the sign is almost sufficient to incur for him the charge of plagiarism, were it not, that the history of medical science, particularly in late years, daily furnishes instances of strange coincidence of opinion and discovery between observers widely separated. In the chapter on pneumonia, we notice that Dr. W. has modified some views advanced in the first edition of his treatise, amongst others, his explanation of Dr. Hudson's statement, that in some unusual forms of pneumonia the sound on percussion is of a *tympanitic* character, though the lung be *solid*. Dr. H. maintained that this anomaly was produced by an effusion of air into the pleural cavity; but our author then adopted the explanation given by Dr. C. B. Williams, that the sound was the result of percussion over the large bronchial tubes transmitted through solid lung. We now find Dr. Walshe adopting Dr. Hudson's opinions, the change being, no doubt, attributable to increased means of observation.

DR. WALSHE admits the extreme rarity of *chronic* pneumonia, an opinion we have frequently advanced, and we have no hesitation in stating, that many cases that have been considered as examples of this disease, were instances of tubercular deposition supervening upon a neglected or badly treated acute pneumonia. We do not recollect to have seen more than one case, accurately answering our pathological notions of the disease, and these coincide with Dr. Walshe's. "I mean by chronic pneumonia, that form of disease in which an impermeable tissue is infiltrated with *toughly-solid* exudation (in the state of induration matter) and where there is no tendency to a softening process, these are its *main* characters." Let all supposed cases of chronic pneumonia be tested by this description, and we shall hear less of the disease. It is quite clear, that much that has been written on this point by Blakiston, is applicable to tubercular deposition, and not to chronic pneumonia. But is it only in the pathological view of the matter that this subject is of importance? assuredly not—frequently have we had cases of sub-acute, latent, and chronic pleurisy, under our care, which other practitioners had pronounced to be instances of chronic pneumonia, and which, the well marked *succession* of physical signs unequivocally proved to have been examples of pleuritic effusion. In one case, more than ordinary difficulty surrounded the diagnosis, as the disease was situated in the anterior and upper part of the right side and was circumscribed, and the case had been treated in a Medical Hospital, and the patient's card labelled with the name of his supposed disease.

To the careful consideration of this question we earnestly invite our readers' attention—bad pathology must lead to bad diagnosis, and this to bad treatment. Let pathology and diagnosis be more carefully studied among us, and we shall have fewer patients to hand over to quacks.

Dr. W. does not add anything new to our acquaintance with that confessedly obscure disease *lobular pneumonia*, and we have also to complain of the very meagre description he has given of gangrene of the lung. One point of value in diagnosis, we must, however, extract, as our own experience corroborates its accuracy. "I have now seen some half-dozen cases of consumption, in which the special fœtor occurred incidentally, in connexion with tuberculous cavities already formed. In one of these instances the expectoration of a fœtid pea-like mass, distinctly possessing microscopically, and even to the naked eye, the characters of pulmonary tissue, put a term to the gangrenous discharge, a fact which I hold to be proof positive that a minute sphacelated spot may impress the characteristic fœtor upon the expectoration and breath, quite as effectually as gangrene of extensive area. "A tuberculous cavity, thus locally gangrenous, is very difficult to distinguish from true gangrene

of the lung, if the case be seen for the first time when that change has occurred, and if the history of the case be imperfect. The seat of the cavity at the apex, and the existing signs of induration at the other upper lobe, once guided me successfully to the diagnosis in a case of this kind." We had under our care, a case sent to us by Dr. Fowler of Melbourne, which fully confirmed what is above stated—the patient was labouring under phthisis, a cavity occupied the upper portion of one lung, whilst evidence of deposition was furnished by the other, and the fœtor of the breath and expectoration was even greater than we have ever noticed in true gangrene of the lung.

We have room for only one extract more, and we select that which, we believe, will be found useful to our readers, the one containing Dr. Walshe's opinion of the value and proper mode of exhibiting cod-liver oil in phthisis, a remedy now so generally employed:—

"My task in examining the efficacy of various specific agents will be brief. Iodide of iron, chloride of sodium, liquor potassæ, chlorine and iodine inhalations, hydrocyanic acid, creasote, digitalis, are disposed of in the masterly analysis of their claims by M. Louis; and naphtha may be allowed to remain in the rather rough grasp of the *British and Foreign Medical Review*. But cod-liver oil cannot be so lightly dismissed.

"I began to employ the oil at the Consumption and University College Hospitals seven years ago, urged to the step by the strong advocacy of Doctor Hughes Bennett, and took an early opportunity of testifying to its remarkable powers in tuberculous and other scrofulous diseases. The conclusions at which I have arrived concerning its use in phthisis, are as follows:—1. That it more rapidly and effectually induces improvement in the general and local symptoms than any other known agent. 2. That its power of curing the disease is undetermined; I mean here, by "curing" the disease, its power of causing, along with suspension of progress, such change in the organism generally, as shall render the lungs less prone to subsequent outbreaks of tubercles, than after suspension occurring under other agencies. 3. That the mean amount of permanency of the good effects of the oil is undetermined. 4. That it relatively produces more marked effects in the third, than in the previous stages. Opinions the most diverse have been held on this point. M. Lanfflied thought that it had little or no effect on phthisis, if at all advanced; M. Peregra reduced the size of cavities in a few weeks by its administration. 5. That it increases weight in favourable cases with singular speed, and out of all proportion with the actual quantity taken; that hence it must, in some unknown way, save waste, and render food more readily assimilable. 6. That it sometimes fails to increase weight. 7. That in the great majority of cases, when it fails to increase

weight, it does little good in other ways. 8. That it does not relieve dyspnoea out of proportion with other symptoms. 9. That the effects traceable to the oil in the most favourable cases are : increase of weight, suspension of colliquative sweats, improved appetite, diminished cough and expectoration, cessation of sickness with cough, and gradual disappearance of active physical signs. 10. That in some cases, it cannot be taken, either because it disagrees with the stomach, impairing the appetite, (without itself obviously nourishing,) and causing nausea, or because it produces diarrhoea. 11. That in the former case, it may be made palatable by association with a mineral acid ; and in the latter, prevented from affecting the bowels, by combination with astringents. 12. The intra-thoracic inflammations and hæmoptysis are contra-indications to its use, but only temporarily so. I have repeatedly given the oil within a day or two of the cessation of hæmoptysis, without any return taking place. 13. Diarrhoea, if depending on chronic peritonitis or secretive change, or small ulcerations in the ileum, is no-contraindication to the use of the oil ; even the profuse diarrhoea caused by extensive ulceration of the large bowel is not made worse by it. 14. That the good effects of the oil are *cæteris paribus*, directly as the youth of those using it,—a singular fact, which probably may one day, (when the textural peculiarities of youth and age are better understood,) aid in giving a clue to its mode of action.

“Of the three kinds of oil, the *brown, light brown, and pale* ; the *brown* I believe, as matter of actual experience, to be the most efficacious. But, though taken greedily by infants, it is more distasteful than the pale to the adult palate, and hence, in grown-up persons I have been forced to use the latter, less active kind, (in fact, *gild the pill*,) in order to ensure oil being swallowed at all. Chemists give no positive answer to the question, on what depends the efficacy of the drug ? its influence on the composition of the blood, is yet undetermined. A single analysis by Simon, shows a state of hyperinosis, combined with a great excess of albumen, may follow on its use ; the solid constituents were in large amount. The patient had been bled repeatedly for hæmoptysis.

“The iodine of the oil, its phosphorus, butyric acid, gaduine, biliary material, and its mere fatty matter, have been severally accorded the chief part in the beneficial results. The discussions on this point do little more than exhibit the existing poverty of our knowledge of the intimate action of remedies. On the other hand, the established efficacy of the oil—a substance of which, *a priori* views would scarcely have admitted the possible retention by the phthisical stomach, is another of the conquests of experimental therapeutics.

“The dose of oil at the outset should never exceed, (often fall short

4f) a drachm twice daily : it may be taken in water, milk, orange wine, or any aromatic water agreeable to the patient. The dose may be gradually raised to half an ounce, twice, or at most three times, in the twenty-four hours. I have never seen any good, and often observed ill effects, follow the attempt to pour in large quantities."

We have avoided alluding to our author's strictures upon the peculiar opinions of Skoda, the eminent auscultator of Vienna, as we hope to place before our readers, in a future number, the views of that distinguished master, who has laid the foundation of the Vienna School of Medicine, and whose *clinic* is now attended by students from all parts of the world, amongst whom, one of Dr. Walshe's colleagues, Dr. West, holds a prominent position, and has recently published a valuable treatise on diseases of the chest.

In conclusion, we cheerfully recommend this treatise to our readers ; to those, who wish to master the difficulties of physical diagnosis, and acquire a familiarity with the *science* of their profession, it will serve as a sure and efficient guide : whilst those, who practise medicine, merely as an *art*, (and we regret that their number is so great,) will obtain from its perusal, many safe and judicious instructions for their management of thoracic disease ; and for the student, the work is the most complete, most accurate, and most explanatory, of all the treatises, that have been published for his use upon this special branch of medicine.

SCIENTIFIC INTELLIGENCE.

ANATOMY AND PHYSIOLOGY.

On the Transformation of the two Aortas into one in Embryonic Vertebrata.

M. SERRES read a paper before the Academy of Sciences of Paris, on the 22nd of December, wherein he confirms the experiments of Dr. Allen Thompson and Mr. Milne Edwards, touching the time of embryonic life, when the originally double aorta is conjoined into one. M. Serres placed the embryo chicken with the omphalo-mesenteric membrane on a plate of glass ; as the action of the air and cold arrests the circulation, the blood becomes coagulated in the vessels, the transparency of which allows the sanguineous injection to be seen. By means of a series of preparations thus arranged, the above-mentioned union is seen to take place towards the middle of the dorsal region from the fiftieth to the sixtieth hour ; it then extends upwards from the sixty-fifth to the seventieth hour, and progresses downwards from this latter period. Thus, at the end of the third day, and, at the latest, of the eighty-fifth hour, the two arterial trunks are united, and form but one vessel.

SURGERY.

Cystic Disease of the Female Breast. By MR. BIRKETT of Guy's Hospital.

The case which this day is fixing our attention belongs to the class of cystic diseases of the breast; let us see Mr. Birkett's views on the subject. The author divides the cysts formed in the female breasts into two categories:—First. Cysts depending upon dilatation and morbid condition of the lactiferous ducts or acini. Second. Cysts produced by a peculiar action in the fibro-cellular envelope of the gland tissue, and the consequence of a morbid state of the function of nutrition. As to the first division, Mr. Birkett offers the following conclusions:—That the lactiferous ducts are liable to dilatations resembling cysts; that this morbid condition simulates more important diseases; hence this suspicion being excited, the excision of the tumour has been resorted to. 2. There is no evidence to prove, from minute examination, that the growth within the ducts enjoys any characters in common with either the cysto-sarcomatous or carcinomatous new formations. 3. That this morbid condition belongs to the class of non-contaminating diseases.

The case before us presented several cysts with very slight development of solid growths within their cavity. Of this kind of cysts, Mr. Birkett says, after treating of single cysts containing fluid—"These cysts may be divided into two classes; the contents of the one class differing from the contents of the other. In the first class the fluid is mucoid, turbid, of a greenish tint and slightly fœtid odour. In the second, the fluid is glairy and tenacious, clear serum, or of a reddish tint. The first I attribute to a morbid condition of the ducts, and I believe is characteristic of this affection. The second are the true sero-cysts." The following case will serve to illustrate this latter kind of cysts, with a rudimentary development of solid growths within them:—

Charlotte J——, aged forty-four, applied to Mr. Birkett, as an out-patient, at Guy's Hospital, 31st March, 1851. She was a thin, excitable, and healthy-looking woman, and a resident in the neighbourhood. The patient is married, and has had two children, the last, nine years since. Both these children she suckled with the affected breast, as well as with the other, which is small and atrophied; the catamenia appeared with regularity. Eighteen months before her application to Mr. Birkett, this woman noticed a small nodule in the left mamma, which slowly increased, but did not then attain the size it now presents; before this, however, the breast had always been healthy.

The first time she applied there was a tumour in the left mamma, about five inches in diameter, rather on the sternal side of the nipple,

and projecting forwards in a remarkable manner. Fluctuation was clearly perceptible in the larger mass, for the whole was composed of a large cyst and two lesser ones. She suffered no pain, but a feeling of distention; the nipple, although small, was unaffected, and the axillary glands were healthy. The disease was attributed by the patient to a blow received in the mammary region, eighteen months since. Various remedies had been employed in the hope of removing the complaint, such as leeches, ointments, and a seton, but no beneficial result had accrued.

The tumour being large, and the fluctuation very distinct, Mr. Birkett inserted a trocar and canula into it, and abstracted six ounces of blood-coloured serum. When the largest cyst was thus emptied, three small, hard nodules were distinguishable at the outer and inferior regions, but they were not interfered with. Strapping and bandage were applied, and on close examination, it was supposed that this large cyst was situated behind an atrophied portion of the gland.

Fifteen days after the operation, it was found that the cyst had slowly filled again, and that it was now as tense as ever. The compound mercury ointment was applied, and small doses of iodine were taken internally.

Eighteen days after this, the tumour being very tense, the contents, to the amount of six ounces, were again removed, and they consisted of the same sanguineous serum as before. Three days after this second operation, the tumour had resumed its original size; several applications were used without any good effect, until July 2nd, about three months after the patient's first application, when she was admitted into Doreas ward. In consultation with Mr. Cooper, it was decided that the removal of the disease was necessary to the well-being of the patient, and an operation was therefore decided upon.

On 17th July, whilst the woman was under the influence of chloroform, an incision was made across the tumour, below the nipple, and the flaps of skin being reflected upwards and downwards, the disease was readily removed, for it was neither adherent to the super nor subjacent tissues. The nipple and the lower half of the gland were not interfered with.

No accidents arose to retard the cicatrization, and the patient left the hospital about one month after the operation, the wound being completely healed. Mr. Birkett has seen the patient often since; the cicatrix was quite healthy, and her health good.

Anatomy of the morbid growth.—The mass consisted of one very large, two small, and several minute cysts or cavities. A very small portion of the gland tissue was removed, and it appeared condensed and atrophied. The parietes of the cysts were composed of areolar tissue;

some were very thin, and others thick. All the cysts contained a dark, blood-tinged, tenacious fluid, and the largest had no communication with the others. In it, as well as in several of the others, solid developments were seen attached to the lining membrane; they were exceedingly vascular, very soft, and readily torn. Beneath the lining membrane of the large cyst numerous veins ramified; some were of large size, besides more minute vessels and capillaries. Many of the smallest cysts were identical in their appearance and their contents, with the minute cysts so constantly found in or upon the posterior surface of the mammary glands of women of advanced life. The elements of these intra-cystic growths approached rather to the epithelial development. They were elongated plates or scales, with a small nucleus having an atrophied appearance. Although coherent in masses, the tissue broke up in a peculiar linear direction. These intra-cystic growths occupied but a small space in proportion to the size of the cavities of the cyst.

The non-contaminating nature of these cystic tumours of the breast, renders them extremely interesting to the practitioner, for it is very gratifying when, by exercising his powers of diagnosis, he is able to distinguish these tumours from those terrible growths which portend so much misery and suffering. He will thus be able to tranquillize the mind of patients, who are in general very much alarmed by tumours in the breast.

As to the origin of these cystic growths, we find Mr. Birkett saying:—

“True cyst formations are frequently found in the mammary gland, or at least within its fascial envelope. They appear to originate in the uniting tissue about the lobes; and I hope to be able to prove that they have a close relation with certain morbid states of nutrition, if they be not, in fact, a stage in the formation of new growths.”

There can be hardly any doubt that the expression “morbid state of nutrition,” is pregnant with meaning, and will certainly bear extensive application. The following passage of the same work strengthens this opinion:—

“It is now, I believe, an established pathological fact, that a hypertrophied condition—that is, an excess of the various elements in their transitional stages of development into perfect tissues, may take place; and I am inclined to think, that this is nowhere better manifested than in those morbid conditions of mammary gland which present to our notice cysts with fluid contents, cysts with solid growths, and those growths approaching more or less to the characters of the true gland tissue. I have been led to these conclusions from observations only, and all the remarks I shall make are founded upon original researches.”

—*London Lancet.*

Case of Destruction of the Lower Jaw and of a portion of the Face, under Homœopathic treatment. Novel Operation. By Prof. F. H. HAMILTON, M. D.

Martin Neuman, 7 years old, was attacked on the 10th of August, 1849, with a mild dysentery. The family were German, and sent for a German Homœopath, who gave him at once small pills which "looked and tasted like sugar!" also a powder and a solution.

Within seven days from the time the medicines were commenced, salivation began, and small ulcers appeared upon the inside of the mouth, upon the gums, &c. Three days after, the ulceration had extended so rapidly that the lower lip was nearly separated, and in a day or two more, it fell off entirely. Three months later, the greater portion of the lower jaw came away in one piece, being two and a half inches long, and including the whole diameter of the bone with its corresponding teeth. The bone and teeth are now in my possession.

It is a coincidence somewhat remarkable, that the sister, Amelia, several years older, was ill in the same way, and at the same time (it was during the prevalence of the cholera in this city), and took medicines from the same man, viz: solutions, &c., and within one week, she was severely salivated also, and her mouth became ulcerated, but no destruction of bone or of the soft parts ensued.

In January, 1850, the lad was brought to me by his father. The lower jaw was then reproduced through the whole extent of that which had been destroyed, but the teeth were of course not replaced: nor was there a vestige of a lower lip, and even the bone was thinly and imperfectly covered with integument. His condition was distressing in the extreme, since he could masticate only with great difficulty, and his saliva was constantly pouring upon his chin, excoriating his face and neck, and saturating his clothes.

First operation for the restoration of the lip. Jan. 14, 1850, in the presence of the class at the Medical College, I abraded the upper edge of the skin corresponding to the lower lip, to the extent of a quarter of an inch each way from the centre; from either extremity of this horizontal incision, I cut perpendicularly about one inch, and then starting from the lower end of these incisions, I carried the knife outward and downward to the left, and outward and downward to the right, one inch and a half. The two lateral pieces thus marked out, were now dissected from the jaw and slid upward and drawn together with sutures above the central piece; the lower edge of the lateral pieces thus united were stitched also to the upper and abraded edge of the central piece.

The object in leaving a central piece attached to the jaw, and uniting the lateral pieces above it, was to prevent the lateral pieces, which were

to constitute the new lip, from drawing down again by the contraction of the wound below. The plan was original, I believe, and proved successful. The lip, however, became, in process of time, through stretching and sinking, insufficient; and I made a second operation to increase the depth of the lower lip, and prevent more effectually the saliva from dribbling from the mouth.

Second operation, Aug. 28, 1850, at my office, in the presence of Drs. Samuel Carey, Camp, and others. My mode of procedure was entirely new, and, as I believe, has established an important principle in this class of operations. The operation was as follows: A single incision was made just under the chin, extending along the lower edge of the inferior maxilla about three inches from side to side. All the integument comprised between this horizontal incision and the upper edge of the lower lip, was now raised from the bone, and the entire mass slid upward until its lower edge was made to correspond with a line just below the upper border of the jaw. Here this edge was made fast to the *periosteum*, by several interrupted sutures. The gaping wound below was left to close by granulation. The result has been, that adhesion occurred between the lower edge of the flap, thus secured, and the periosteum, and no disposition was afterwards shown in the flap to draw downward as the wound cicatrized; but, on the contrary, the skin from below, that is, from under the chin and the neck, was somewhat drawn upward, and thus between the formation of new skin and contraction from the skin below, the wound closed.

The new principle established is, that *by attaching the skin directly to the PERIOSTEUM, its displacement by cicatrization and contraction is prevented*. Every one who has operated for restoration of the lower lip will see the advantages which this plan offers. There is nothing to which the upper, free border of the new lip can be attached, and there is consequently nothing but the mere transverse tension of the lip, to prevent its descending as cicatrization progresses below. This tendency I sought to avoid in the first operation, by leaving a central piece untouched and adherent to the bone, and then bringing the new lip above it. But this procedure requires a sacrifice of a portion of the transverse diameter of the lip, and is often wholly inadmissible; and always objectionable, if the same end can be attained by another mode. This new mode, as we have demonstrated, prevents the sliding downward, without sacrificing any portion of the lid. These remarks are applicable especially to cases of *complete* loss of the lip. Where only a portion is lost, various other methods of supplying the deficiency may be practised; as by stretching the lip, or sliding from the cheeks, or even by an operation of "torsion" from the cheeks.

This idea originated in having observed elsewhere the capacity of periosteum to form skin. I have several times proved, contrary to the often repeated doctrine, that skin may form *de novo*, independent of old skin: as where there has been an extensive destruction of the integuments over a bone—where the parts have been torn away, or have sloughed, quite to the periosteum, and consequently, no old skin could have been left from which the new could form, except at the edges; yet in the oasis, and gradually spread outward in all directions. But this has always been where the periosteum was actually exposed, which first becoming white and spongy, has soon shown itself to be a nucleus of a new skin—in fact, it has become *itself converted into skin*, remaining ever afterwards depressed, immovable, and adherent to the bone at that point.

The result of the case of the lad Neuman is, that he has a lower lip, sufficient to cover the gums and a part of the bodies of a set of artificial teeth which our ingenious dentist, Dr. Harvey, has made for him. The lip is narrow, for we have not yet been able to prevent the contraction and rolling in of the upper edge as it heals, but it would certainly have been much narrower, or entirely lost, if the adhesion to the periosteum had not been effected.

I will not omit to say that by the constant effort to use the lower lip, or perhaps simply by the lapse of time, the lip has very perceptibly lengthened in its vertical diameter during the last six months.—*Buffalo Med. Jour.*

PATHOLOGY AND PRACTICE OF MEDICINE.

Leprosy in New Brunswick.

[The disease to which allusion is made in the following extract has existed for some years in parts of New Brunswick. A few years ago, the Government of that Colony appointed a commission to report upon the subject, and their investigations were published about a year ago in the *Lancet*. We have heard some old physicians declare, that they witnessed formerly, diseases in different parts of Lower Canada very similar to this Leprosy. We would feel extremely grateful for any communications that would throw light upon this obscure subject.]—*Ed. C.M.J.*

SIR,—Having understood that some account of the disease, to which I recently alluded, might be deemed not uninteresting to the readers of the Medical Journal, I proceed to offer such information as is now within my reach—premising, however, that as I am but a mere lawyer—

“He was, could he help it, a special attorney”—

I must be considered entitled to draw on the kind forbearance of your medical readers for all the errors of *nomenclature*, into which I shall fall. This "the Faculty" will readily grant, when I undertake, as a "condition precedent," that there shall be no error in *fact*.

You are already aware that the focus of this terrible disease is in the settlement of Tracadys, in the British Province of New Brunswick, situated on the Gulf of St. Lawrence, about fifty miles north of the mouth of the Miramichi River. Before the Provinces of Nova Scotia and the Canadas became British, the whole range of the Gulf coast had been partially settled by Norman immigrants, and it, no doubt, became a refuge to many of the poor "habitans" and their families, who, fleeing from the Acadian expulsion of 1755, the scenes of devastation and distress so beautifully described in "Evangeline," crossed the Nova Scotia isthmus, and scattering along the shores, formed settlements, at intervals, as far north as the river St. Lawrence, carrying with them the religion, language, costume, and those primitive habits of Normandy, which in several localities are still retained. May I be permitted a digression so far as to express my hope that the author of "Evangeline" may visit those Acadian settlements which are yet to be found on that remote and comparatively unknown, although most interesting, coast. He is said to be an amiable man, and his poetic mind would be pleased to learn that the soothing tones of the "Angelus," floating from the unpretending spire of the old Acadian church of Carroguet, always heard with pleasure and veneration, sound more sweetly to those who have been taught by his beautiful hexameters to associate its music with the by-gone days of Grand Pré.

But to the subject. The extensive tract of country, lying between the Ristigouche river (the Canadian boundary) and the river Miramichi, although partially settled, as I have mentioned, was almost a sort of terra incognita, until the year 1827, when it was created a county under the name of the County of Gloucester. Its interior was then, and in some respects still remains, a wilderness, the coast and the bank of rivers only being settled, and those rather scantily. The more populous settlements are generally those of French origin. Some are still exclusively French; others have yielded to Anglo-Saxon and Celtic influences. Tracadys is one of the old settlements, and contains about 3000 inhabitants composed almost entirely of French Acadians of Norman descent, and it was here that this disease was first detected. For several years there had been rumors that some cases of a very disgusting disease had occurred there; but rumor also gave it a character and a name by which the sufferers were excluded from sympathy. No official notice was taken of it until 1844, when some persons being

reported to be infected who were not allied by blood to those families which were reported unsound, the disease was deemed contagious, and the Grand Jury of the County took the subject into consideration as involving the safety of the public. Persons were appointed by the government to visit the settlement, and examine and report upon the state of the inhabitants. The writer held, at that time, an important office in the County of Gloucester, and it is from authentic public documents that he gives the following details. Over thirty cases were discovered, and the symptoms were recognized as belonging to the Greek elephantiasis, in all its stages. It had been lingering in the settlement for many years, and was considered to be confined to two families, but there had been three or four instances where it was known to have attacked individuals not connected with these families by blood relationship. The writer is possessed of twenty-two cases, drawn up on personal examination of the unfortunate sufferers; and before referring to a report which had been officially made, and which with your permission he may hereafter communicate, he proceeds to exhibit the cases of Peter Savoy and Peter Robisheau, as they appear to embrace many of the diagnostics of the disease.

“ Peter Savoy, age 41; married; has been suffering for eight years past; complained of great weakness and pain in the stomach for three or four years prior to the appearance of the eruption, which showed itself first in spots of a dark yellowish colour upon the face and forehead, accompanied by great depression of strength and spirits. The disease, after its outward appearance, advanced rapidly, and the skin assumed a dirty yellow hue over its whole surface. In the course of a few weeks the spots became livid, slightly elevated, and oily in their appearance, but not remarkable for any change of sensibility; the elevations were not large, but they soon assumed the tuberculous character. The tubercles appeared first on the face and nose, and afterwards on the arms, legs and body. The face at this time was slightly puffed, but there were no deep furrows separating the tubercles, either upon the cheeks or forehead. The cheeks were thickened, puffy, and greasy in appearance; the nostrils were swollen and greatly dilated; the ears were thickened, elongated, puffy, and tuberculous. Some of the tubercles disappeared, but others shortly afterwards succeeded them upon the face. The tubercles continued indolent for several years, after which ulceration commenced. Does not recollect that the ulceration was preceded or accompanied by pain or any febrile symptoms. Scabs formed on some of the sores, and others of them healed, but there was not any pain, neither in the scabby tubercle nor in the cicatrices of those which healed spontaneously. The

tubercles on the arms appeared first on the outside of them and on the upper part ; the hands appear fuller, discoloured and tuberculous ; these tubercles are flattened. The feet are tuberculous, swollen and ulcerated ; the soles, like the palms of the hands, are puffy and flattened. The tubercles on the feet are small ; the knees have been tuberculous ; they have occasionally healed, leaving a smooth, shining appearance or cicatrix. Ulceration has attacked the ends of the toes, and has degenerated into sphacelus. He complains of debility in the legs, which he describes as being too heavy for him. The hair has fallen from his whiskers, eyebrows, breast and axilla, and from those other parts of the body which were attacked with tubercles. The inside of the mouth is filled with tubercles ; the sublingual veins are enlarged, the lips are thickened, shining, excoriated and enlarged. The trunk of the body is tuberculous, but the indurations were not ulcerated. The voice is affected, and the exertion of talking, tiresome. The nose discharges a small quantity of an irritating, puriform fluid. He complains of pain in the breast before damp or rainy weather. The senses of hearing and sight continued unimpaired ; that of smell was vitiated before the nose became sore. The appetite and sleep are irregular ; tongue foul ; bowels open regularly ; urine yellow ; has experienced no alteration whatever in the sexual desire ; the sense of taste is injured. He has been married sixteen years ; has had seven children, four of whom are dead ; the youngest living is six years old ; none of them ever manifested any symptoms of the disease. He has followed fishing and farming for a living, and has used the common mixed diet of the country. He was intemperate, and indulged freely in the use of spirituous liquors for five years preceding the appearance of the disease. His wife is living ; she is in good health, and never had any symptoms.

“ Peter Robisheau, aged 26 ; not married ; has been diseased four years ; complained of pain and general listlessness for twelve months preceding the appearance of spots. The pain was particularly troublesome on his feet. At the end of the time mentioned, discoloured spots, like watery blisters without any induration, appeared upon the shins and outside of the fore-arms ; the palms of the hands soon afterwards became affected, the fingers swollen, the extremities of them ulcerated and sphacelous, the bones became carious, and he lost the extreme points of several fingers, the remaining portions of them being contracted. The puffiness of the palm gives this contraction a peculiar appearance, the palm forming a straight line, and the fingers a hook at the end of it. His arms feel unusually heavy when he raises them. His face is swollen, puffy, and of a darkish hue. There are small round spots and tubercles upon the forehead. The lips are swollen ; the sublingual veins

are enlarged; his skin generally, but more particularly on the breast, is discoloured, and there are yellowish spots on the breast resembling brushes. The hair is beginning to fall from the eyebrows; the feet and backs of the hands are spotted and tuberculous; the legs are œdematous, and ulceration, exposing the bone, has attacked the joint of the great toe. He complains of pain at the pit of the stomach; his bowels are regular, but his urine is yellow and hot. He sleeps well. There is a numbness in some parts of the skin. He felt, before the appearance of the eruption, as if he should be attacked with leprosy, as he had heard lepers complain of similar symptoms. He has always been very temperate, a farmer, and used the common diet. He is a son of Joseph Robisheau, who married Anasthasia Sonier, and has two sisters and a cousin labouring under the same disease. Cannot account for the appearance of the disease upon himself, as his father and mother never exhibited any symptoms of it. His sisters were attacked before himself: has never lived in the house with them. His cousin, by his father's family, Israel Robisheau, is dead, and his uncle John died of leprosy in his fiftieth year. Family in tolerably comfortable circumstances."

The writer, in his next, will give the particulars of several other cases.—*Boston Medical Journal*.

Case of Eclampsia Nutans, or "Salaam Convulsion." By E. C. BIRWELL, M. D., Keene, O.

IN March, 1849, Mr. Newnham published an article on this interesting disease, containing the details of four cases—all that were then known to be on record. The next year, Dr. Willshire reported another case. These two essays comprise, so far as my knowledge extends, the bibliography of the disease. Of these five cases, the last only had a favourable termination, the other four issuing in idiotcy or death.

Soon after meeting with Mr. Newnham's essay, a case of the disease came under my own observation; and though differing but little from the cases therein reported, I have thought it worthy of record, since every case of a malady, which has occupied so small a space in medical literature, and, at the same time, of such grave importance, possesses an interest and value which cannot attach to mere repetitions on more familiar subjects.

At the age of three months, the subject of the present report suddenly lost the power of motion. She was afflicted at the time with very obstinate costiveness; further particulars not recollected. She was treated with cathartics, &c., and was promptly relieved. About the same time, some of her relatives began to suspect her of deficient intel-

lect; but with the above mentioned exception, she seemed to enjoy uniform good health; and the parents profess to have noticed nothing wrong with her till she was almost six months old. At that time she was observed, on waking in the morning, and three or four times during the day, to bow or drop her head forwards convulsively. This movement was repeated several times in the course of one or two minutes, and the series repeated three or four times every day. These paroxysms were accompanied by suffusion of the eyes, most marked in the night. There was no expression of pain, and there was, apparently, a momentary loss of consciousness. There was not, at this period, any unusual heat of the head; no flush of the face at any time, which was generally quite pale. The feet were habitually cold; the bowels always costive, and the appetite always good.

With the exception of several slight remissions, of a few weeks perhaps, the peculiar convulsions increased progressively in frequency and intensity. When she was one year old, the paroxysms recurred very frequently, almost always soon after waking from sleep, and at other times also, with thirty or forty convulsions in rapid succession in each, and accompanied with a cry as if from pain. By this time it had become evident that her mental development was very much retarded, if not wholly arrested. She had the appearance of a dull child of seven or eight months; but her general health seemed unaffected, and she was able to walk at thirteen months.

Subsequently, her growth was slow, and the intellect evidently retrograded. Gradually, the morbid movement increased in extent; from the slight nod first described, it became a true oriental "salaam," in which the head was drawn suddenly quite down to the floor, with such violence that the forehead and lips were continually bruised and lacerated from the injuries received. At this period, there was but one convulsion at a time, lasting but an instant, and attracting no attention from the little sufferer herself, except when attended by severe injury. This was repeated many times during the day. Still later, epileptiform fits were superadded, less frequent, but individually of longer duration. Towards the end of her second year, she was hopelessly epileptic and idiotic. At twenty-six months, she died, after a short illness, with febrile symptoms, and a great aggravation of those peculiar to her case.

For the last few months all treatment was discontinued, previous to which time she had passed through the hands of several different practitioners; regular and empirical; had been blistered behind the ears, and on the neck; pustulated with tartar emetic; bathed with warm, and showered with cold, water, separately and consecutively; had taken tonics, cathartics, vermifuges, alteratives, specifics, and what else I am

unable to say, all with no sensible effect, unless, possibly, that, while suffering palpably from the drug disease, the morbid motions were less conspicuous. Perhaps none of the temporary amendments or remissions, already noted, could be fairly attributed to any system of medication to which she was subjected. The parents think, that one remedy, and one only, had a decided effect on the disease: the decoction of yellow dock, with a small quantity of bichloride of mercury, was taken for a considerable period, during which the habitual costiveness was entirely obviated, and for the same period the characteristic symptoms were ameliorated. The costiveness and the convulsions returned together immediately on its discontinuance.

The principal points of the disease, as exhibited in this case and in most of those previously reported, may be recapitulated thus: the diagnostic nodding or bowing of the head; its occurrence soon after sleep, though it also occurred at other times; the subsequent accession of another form of convulsive movement, intercurrent with the original; the permanent injury to the intellect; and finally, its irremediable character, and fatal result. In one important particular only did it differ from the most of those—there was no paralysis.

I have been thus minute, at the risk of being tedious, in reporting this case, upon principle, believing that clinical reports are valuable very nearly in proportion to their completeness. Doubtless, the reader will consider the space better occupied with these details than with any speculations or hypotheses of mine, which are therefore omitted.—*New York Journal of Medicine.*

De la Transfusion du sang à propos d'un cas suivi de guérison, par les docteurs DEVAY et DESGRANGES, médecin et chirurgien en chef désignés de l'Hôtel-Dieu de Lyon.

LORSQUE Harvey, guidé par son génie et soutenu par une ardeur infatigable, eût démontré le cours du sang, les médecins, convaincus de la circulation, n'y virent pas seulement une vérité du plus haut intérêt, ils l'acceptèrent aussi comme une voie nouvelle ouverte à la thérapeutique. L'*infusion* des médicaments dans les veines, la *transfusion* du sang allaient résoudre tous les problèmes. Désormais le remède, sans être altéré par l'estomac ni perdu dans l'intestin arriverait directement sur l'organe à guérir. Au faible on donnerait un sang riche, au valétudinaire un sang plein de vie, au furieux le sang d'un animal doux et inoffensif. Qui sait si l'on n'osa pas espérer de rajeunir un vieillard!

L'enthousiasme touchait alors à un extrême, dont l'extrême opposé devait être plus tard un discrédit aussi complet qu'injuste.

Vers l'année 1657, Christophe Wren, fondateur de la Société des sciences de Londres, proposa l'infusion des médicaments dans les veines et la transfusion du sang ; c'est même sur ces instances que Clark, Boyle et Henshaw firent des injections médicamenteuses dans les veines. En 1665, Richard Lower fit à Oxford les premiers essais de transfusion sur des animaux. Il adaptait, au moyen d'un tube interposé, la carotide d'un chien à la jugulaire d'un autre. Edmond King répéta l'expérience avec un égal succès, en la modifiant toutefois : au lieu d'injecter du sang artériel, il fit passer le sang d'une veine jugulaire à la jugulaire d'un autre animal. Rien n'avait encore été mis à exécution sur l'homme, quand Denys et Emmerets firent, à Paris, leur première opération (1666). C'était un fou qui reçut une première fois 240 grammes de sang de veau, s'en trouva bien et revint à la raison après une seconde transfusion. Un certain Arthur Coga vient solliciter Lower et King de lui faire la transfusion ; il reçoit, après une saignée préalable, du sang que lui fournit la carotide d'un mouton et se déclare très satisfait. A Rome, Guillaume Riva fit, sur un phthisique, la transfusion sans accident ; Paul Menfredi, de son côté, lui dut un beau succès.

Ainsi la transfusion, basée sur des expériences positives, couronnée de plusieurs succès chez l'homme, résistait aux coups de ses détracteurs. Mais là devaient s'arrêter les triomphes, là devait commencer une période de revers qui allaient aboutir à une prohibition légale. Le malade de Denys et Emmerets eut une récurrence qui fit recourir à une nouvelle transfusion, et la mort s'ensuivit. Le fils du baron de Bon mourut après une transfusion ; le malade de Riva ne survécut pas longtemps. L'autorité s'émut alors, et le parlement de Paris rendit un arrêt qui défendit de pratiquer la transfusion sous les peines les plus sévères (17 avril 1668).

A dater de ce jour, la transfusion du sang tombe, durant près de deux siècles, dans un tel oubli, que Sprengel, si érudit, si profond sur toutes les questions historiques, n'en dit plus un seul mot. Ce n'est qu'après la publication des travaux de Blundell qu'on la voit reparaître (1818). Waller, Doubleday la reprennent en 1825. Brigham, un an plus tard, la fait heureusement à Manchester. Banner, à Liverpool, s'en sert pour rappeler à la vie une femme près de mourir d'une hémorragie utérine (1833). Ingleby, Klett lui doivent aussi des rétablissements inespérés. (P. Bérard, COURS DE PHYSIOLOGIE, 74^e leçon, *passim*.).

Voilà donc, une fois encore, la transfusion mise en vigueur, mais débarrassée de tout son ancien prestige, réservée seulement aux cas extrêmes où la première indication est de conjurer une mort imminente et de donner à l'organisation le temps de réparer ses pertes. Malgré des conditions si déplorables, malgré les dangers inhérents à l'opération elle-même, la transfusion du sang a donné des résultats frappants. Elle

a réussi dans les cas qui précèdent, elle a réussi dans ceux qu'ont publiés MM. Lane Bougard et Savy. M. le professeur Nélaton, appelé auprès d'une femme en travail, qu'une hémorragie grave rendait agonisante, parvint à la ranimer en pratiquant la transfusion. Le lendemain, l'état de la malade était changé : une réaction franche et de bon augure avait succédé aux signes avant-coureurs de la mort ; mais par malheur les espérances des premiers jours qui suivirent l'opération s'évanouirent devant une métrite-péritonite qui emporta la malade au bout de peu de temps, (BULLETIN GÉNÉRAL DE THÉRAPEUTIQUE, 30 décembre 1850.) Un cas de transfusion récent, qui a fait une véritable sensation, est celui de M. le docteur Marmonier, de Domène (Isère). Cet habile praticien, seul dans une campagne, a eu le courage d'entreprendre une opération pareille ; bien plus, il a eu le talent de réussir. La malade expirante reçoit 90 grammes de sang ; son rétablissement marche si vite qu'au bout de trente jours elle peut reprendre ses travaux habituels (REVUE MÉDICALE, mars 1851). On trouve encore, dans le BULLETIN GÉNÉRAL DE THÉRAPEUTIQUE (15 mai 1851), trois nouveaux faits de transfusion du sang : deux succès et un revers. Les docteurs Bellarsis-Malfen, en Angleterre, et Sacristan, en Espagne, ont été conduits à injecter du sang dans le système circulatoire. L'un et l'autre ont eu la satisfaction de réussir. La mort était presque inévitable chez la malade du docteur Simon. Comment espérer de sauver un malheureux à qui l'on ampute la cuisse, le lendemain d'une transfusion, pour cause d'hémorragie consécutive à un phlegmon diffus ? Quel organisme résisterait à tant de causes de mort accumulées ? M. Monneret a éprouvé un échec en pratiquant la transfusion sur une jeune femme au dernier degré d'anémie, par suite d'hémorragies répétées et abondantes. Elle mourut quelques heures après l'opération (GAZ. MÉD., 1851, p. 664). Peut-être doit-on en accuser la précaution qu'avait prise M. Monneret d'enlever la fibrine au sang qu'il allait injecter. Nous ne serions pas éloignés de le croire, malgré les expériences qui prouvent que le sérum et les globules suffisent pour rappeler à la vie un chien en état de mort apparente, après hémorragie.

Aux faits que nous venons de citer, nous sommes heureux d'en ajouter un nouveau, de fournir par là un argument de plus en faveur de la méthode, et de montrer encore que le manuel opératoire n'exige pas d'instruments particuliers. On peut être assuré qu'au sein d'un grand hôpital, au milieu d'élèves studieux et dévoués, la transfusion ne manquera jamais faute de sang. Nous en jugeons par le dévouement de M. Lardet, interne des hôpitaux, par sa généreuse spontanéité à offrir de son sang. Qu'il reçoive ici nos félicitations cordiales, et nos remerciements pour le zèle et les soins qu'il a mis à recueillir l'observation détaillée qu'en va lire.

METRRORRHAGIE, SUITE D'AVORTEMENT; ANÉMIE EXTREME; MORT IMMINENTE; TRANSFUSION DU SANG; GUERISON.

Obs.—Le 25 octobre, à neuf heures du matin, au moment où M. le docteur Devay, médecin de la salle dite des troisièmes femmes fiévreuses, terminait sa visite, on couchait dans le lit n° 109 de cette salle une malade qu'on venait d'y apporter. C'était la nommée Marie Guerre, née à Saint-Félix (Savoie), âgée de 27 ans, exerçant à Lyon la profession d'ouvrière en fausse bijouterie. Cette fille d'une complexion assez forte, d'un tempérament lymphatico-nerveux, est étendue dans son lit, sans mouvement, les paupières immobiles, les yeux éteints, à demi fermés, les traits abattus et la face toute entière d'une pâleur si grande que nous en sommes tous frappés au premier aspect. Voici une hémorragie grave, telle fut la première parole de M. Devay en voyant la malade. Les porteurs, qui sont restés présents, nous apprennent en effet que cette femme, à la suite d'un accouchement prématuré, avait eu, les jours précédents, une hémorragie si abondante, qu'elle avait *perdu tout son sang*.

A cette heure tout écoulement a à peu près cessé, et on constate les phénomènes suivants : faiblesse générale extrême, intelligence conservée, mais paresseuse et comme engourdie, perte complète de l'usage de la parole. (La malade répond quelquefois par signes affirmatifs, ou négatifs, mais péniblement et après s'être fait répéter plusieurs fois la même demande.)

La face, la langue dans toute son étendue, les muqueuses des lèvres et des paupières offrent une pâleur complète et uniforme. Les membres inférieurs et supérieurs, le tronc, en un mot toute la surface du corps est dépourvue de chaleur. Le pouls est petit, très accéléré (130 pulsations environ par minute), facilement dépressible et fuyant sous le doigt ; les battements du cœur sont faibles et précipités ; bruit de diable dans les carotides. A de rares intervalles, la malade semble sortir pour un instant de l'espèce de léthargie où elle est plongée. L'anxiété précordiale est grande, et les muscles de la face se crispant d'une façon convulsive dénotent une souffrance profonde. La bouche exécute certains mouvements, indices d'une soif vive ; on lui donne à boire à chaque instant, et ses lèvres saisissent avec avidité les bords du vase, mais l'estomac rejette aussitôt le liquide qu'il vient de recevoir. Le volume et la sensibilité du ventre n'offrent rien de particulier ; une pression modérée exercée sur ses parois n'arrache aucun signe de douleur à la malade.

M. Devay fait la prescription suivante.

Potion avec : Infusion de tilleul et feuille d'oranger.
 Ergotine Benjean. . . 1 gramme.
 Sirop de ratanhia . . 30 . . .

Tisane de grande consoude. . . 1 litre.
 Ajoutez : Sirop de roses rouges. G. C.
 Régime : Une ou deux cuillerées de bouillon.

Dans le reste de la journée et la nuit, rien de remarquable.

Le lendemain 26, à la visite du matin, tous les phénomènes généraux et particuliers persistent à un degré plus avancé ; les yeux paraissent plus éteints que la veille ; les paupières, entièrement closes, s'entr'ouvrent avec peine et s'abaissent aussitôt. Si la malade essaye de nous montrer sa langue blanche et comme effilée, celle-ci ne peut revenir au dedans de la cavité buccale, et reste engagée entre les arcades dentaires. Les réponses par signes sont plus difficiles à obtenir que la veille. Il existe un état de réfrigération générale.

M. Devay, jugeant alors que la transfusion est la ressource ultime, fait prier M. Desgranges, chirurgien en chef désigné de l'Hôtel-Dieu, de se rendre auprès de la malade. Ces messieurs réunis prennent l'avis de M. le docteur Delorme, présent à la visite, et d'un commun accord la transfusion du sang est déclarée la seule chance de salut qui reste à cette femme.

MM. les docteurs Dime, Candy, Bouchet, médecins de l'Hôtel-Dieu, invités à la hâte à vouloir bien assister à l'opération, ainsi que mes collègues MM. Morel et Berne, internes des hôpitaux, constatent l'état de la malade, tel qu'il est relaté ci-dessus.

OPERATION.—Aussitôt après, M. Desgranges, qui se charge de cette opération délicate, dispose les instrumens qui doivent lui servir : 1° une petite canule à injections veineuses ; 2° une seringue à hydrocèle ; 3° un stylet aiguillé chargé d'un fil ; 4° un bistouri pointu et des pinces à dissection.

La *petite canule*, longue de 3 centim., est formée par la réunion de deux moitiés dissemblables. D'un côté c'est un tube cylindrique de 2 millimètres de diamètre, de l'autre un pavillon alongé, infundibuliforme, dont l'orifice est de 1 mill. de diamètre. Elle est donc construite de façon qu'on puisse la fixer à la veine par une simple ligature, et que sans peine on puisse y adapter le bout de la seringue.

La *seringue à hydrocèle* peut contenir 180 grammes d'eau ; le piston, à double parachute, bouche hermétiquement et glisse sans effort. Cette seringue est enveloppée de plusieurs doubles de linges fixés par une bande ; elle est plongée ensuite dans un vase rempli d'eau chaude, qu'à tout instant on renouvelle pour avoir constamment une température d'environ $+40^{\circ}$ c. Je ne saurais préciser davantage, la préoccupation du moment nous ayant fait négliger l'emploi du thermomètre.

Les autres instruments n'ont rien qui mérite une mention à part. Un premier aide est chargé de soutenir le bras droit sur lequel l'opération

va être pratiquée, plus tard de veiller sur la canule et de comprimer la veine. Un second aide saisit la main et tient le membre supérieur dans l'extension.

L'opération commence une fois les préparatifs achevés, et naturellement elle se divise en quatre temps distincts.

PREMIER TEMPS : *Isolement de la veine.*—Vers le milieu de la médiane basilique, et parallèlement à son axe, on fait à la peau une incision de 13 millim. Le tissu cellulaire, la graisse, sont divisés avec précaution, et la veine mise à découvert se distingue facilement à sa coloration bleuâtre. Elle est disséquée avec soin, soulevée ensuite au moyen du stylet que l'on parvient à y faire glisser dessous, comme s'il s'agissait d'une ligature artérielle. Le stylet sert à conduire le fil, qui plus tard doit fixer les parois veineuses au cylindre de la canule.

DEUXIEME TEMPS : *Introduction de la canule.*—La veine soulevée par le fil, que tient un des aides, est saisie très légèrement avec une pince, puis incisée longitudinalement avec le bistouri dans une étendue de 4 millim. Après deux ou trois tentatives, on parvient à insinuer la canule dans le vaisseau, sur lequel on la fixe au moyen du fil. On ne voit point sortir de sang par la canule ; ce qui ne doit point étonner, vu le cours de ce liquide et la difficulté que les valvules opposent à une marche rétrograde. Il survient au contraire un inconvénient sanguin à l'angle inférieur de la plaie ; ceci doit être, puisque le sang revient de la périphérie au centre, et qu'une certaine étendue de l'incision reste béante du côté de la main. L'aide, placé près du bras, veille sur la canule et comprime la veine directement au-dessus ; il place un autre doigt sur l'orifice béant du bout inférieur de la veine, afin d'arrêter une perte nouvelle, si petite qu'elle soit.

TROISIEME TEMPS : *Transfusion.*—Tout étant disposé comme il vient d'être dit, M. Desgranges m'ouvre la veine médiane basilique droite. Le sang est recueilli directement dans la seringue chauffée ; et sans perdre un instant, dès qu'elle est pleine on y met le piston et l'on en chasse l'air avec le plus grand soin. De nouvelles compresses d'eau bouillante sont enroulées à la seringue. On l'ajuste et l'injection commence.

Le piston est poussé avec précaution et lenteur ; le sang pénètre sans peine, sans qu'il en tombe plus de quelques gouttes à l'extérieur. En *deux minutes et demie*, et à l'abri du plus léger accident, on fait couler 180 grammes de sang pur dans le système veineux de la malade.

QUATRIEME TEMPS : *Pansement.*—La seringue étant retirée, on ôte la canule en coupant le fil, puis on rapproche les lèvres de la plaie, Une compresse mouillée, pliée en plusieurs doubles, et quelques tours de bande, complètent l'appareil. La malade est remise dans une attitude

commode ; elle n'a souffert un peu que durant l'incision de la peau et l'isolement de la veine.

Pendant l'opération, M. Bouchet compte les pulsations de l'artère radiale du côté opposé ; de 130 par minute, elle s'élève à 138 vers la fin de l'injection. Celle-ci terminée, les mêmes docteurs et internes, ainsi que quelques élèves en médecine, constatent immédiatement l'état nouveau de la malade.

Phénomènes constatés : Le pouls marque 138 pulsations par minute, 8 de plus qu'avant l'opération. Les pulsations, d'oscillantes qu'elles étaient, sont devenues plus résistantes ; il y a plus d'énergie dans l'artère ; les contractions des ventricules sont régulières ; leur puissance a doublé et même triplé ; le bruit de diable a disparu complètement, les yeux de la malade s'ouvrent, ses regards deviennent intelligents ; elle *remarque* ce qui se passe autour d'elle. La rétraction de la langue de dehors en dedans de la cavité buccale s'exécute facilement. La pointe de cet organe paraît déjà légèrement rosée ; en un mot, l'ensemble des phénomènes nouveaux indique qu'une modification profonde a été imprimée subitement à l'économie tout entière, en présence du nouveau liquide réparateur.

L'excitation générale qui s'était manifestée immédiatement après la transfusion est allée croissant dans le reste de la journée et dans la nuit du 26 au 27. Il y a même eu un peu de délire. La malade pousse fréquemment des cris perçants, prononce des paroles incohérentes, et malgré sa faiblesse réelle, se livre à des mouvements qui nécessitent l'emploi d'un lacq, passé autour du lit pour prévenir une chute qui serait des plus fâcheuses.

Prescription.—Potion : La même que la veille.

Pour boisson : Eau de poulet.

Sirop d'ergotine.

Le soir : Potion musquée.

27 octobre. L'agitation est moindre que la veille ; le pouls est tombé à 110 pulsations. La pâleur du visage et des muqueuses est la même. La température du corps est devenue sensible ; la malade continue d'être très-altérée, mais elle n'éprouve plus ni nausées, ni vomissements.

Prescription : Eau de canelle orgée.

Potion avec : Teinture de quina. . . . 3 grammes.

Sirop pivoine.. . . . 15 —

Tisane de grande consoude. 1 litre.

Ajoutez dans la tisane : Eau de Rabel 15 gouttes.

Limonade sulfurique . . . 1 litre,

Pour le soir, un bol avec : Thériaque. . . . 0^s, 10.

Camphre 0^s, 10

Vers la fin de la journée, l'état d'excitation disparaît, et la malade tombe dans un collapsus fort inquiétant.

28. La nuit a été bonne, le sommeil long et calme; le matin le pouls est meilleur, il ne marque plus que 90 pulsations; la peau a perdu de la sécheresse qu'elle offrait les jours précédents; l'usage de la parole est revenu, les réponses se font avec facilité; la langue se colore légèrement, les lèvres ont perdu de leur pâleur, les yeux deviennent brillants; la malade demande elle-même à manger; elle prend deux tasses de bouillon dans la journée.

Prescription : *Ut Suprà.*

Ajoutez à la potion : Teinture de quinquina. . 4 grammes.
Ajoutez à la tisane de grande consoude : Eau de Rabel. . . . 20 gouttes.

Le soir, le rythme et le nombre des pulsations sont les mêmes; les joues se colorent d'une légère teinte rosée. L'état des forces est meilleur.

29. La soif continue, le sentiment de la faim se développe de plus en plus. On ne peut, malgré cela, transporter la malade hors de son lit sans qu'il survienne des défaillances. Les claquements valvulaires sont doués d'un timbre éclatant; le pouls tend toujours à fuir sous le doigt; la langue est recouverte d'une éruption aphteuse, blanche, semblable au muguet des enfants.

Prescription.—Potion : *Ut Suprà.*

Ajoutez : Extrait de quinquina. . . 2 grammes.
Pour boisson : Eau de poulet.
Eau. 1 litre.
Sirop des 4 fruits.
Vin de Malaga.

Depuis le commencement de la maladie, les selles sont liquides, noires, d'une odeur fétide. On prescrit aujourd'hui :

Demi-lavement : Décocté de serpentaire de Virginie.

Camphre. 4 grammes.
Extrait de quina. 4 —
Extrait de valériane. . . 4 —

30. La langue s'est dépouillée en partie des aphtes qui la recouvraient; la malade exhale une légère odeur putride.

Prescription.—Potion avec : Infusion de menthe et tilleul.

Extrait de quina. . . . 4 grammes.
Sirop d'œillets. . . . 30 —

Pour boisson, un mélange de : Sirop de groseilles.

Vin de Malaga.

Idem : Bouillon de poulet.

Extrait de quina.

31. Rien de nouveau dans l'état de la malade.

Prescription.—Potion : *Ut Suprà.*

Lactate de fer. . . 6 pastilles.

Supprimez les bols de thériaque et camphre.

1er novembre. Prescription.—Potion : *Ut Suprà.*

Tisane de houblon.

Sirop de gentiane. q. s.

Ajoutez : Teinture de mars tartarisée. . 4 grammes.

Supprimez la tisane au vin de Malaga additionné d'extrait de quinquina.

2 novembre. Battements du cœur un peu obscurs ; bouffissure légère de la racine du nez et des paupières ; miction difficile.

Prescription : Conserve de roses. . . . 80 grammes.

Limaille de fer. 1 —

Extrait de ratanhia. . . . 4 —

Potion : *Ut Supra.*

Pour besoin : Limonade vineuse.

Bouillon de Poulet.

Vin de Bordeaux.

Suspendez la tisane de houblon.

3 novembre. Un peu d'obscurité de la respiration à droite ; bruit de cuir neuf dans le cœur ; bruit de souffle dans les carotides.

Potion : *Ut Supra.*

Pour boisson : Bouillon de poulet.

Vin de Bordeaux.

Eau de Bussang.

Supprimez la limonade vineuse.

4, 5. Prescription : Conserve de roses. . . . 80 grammes.

Limaille de fer 1 —

Extrait de ratanhia. . . 4 —

Sirop de cachou. 30 —

Potion gommée avec : Sirop d'œillets. . . 30 —

Extrait de quina. 3 —

6. Prescription : Suspendez la potion ci-dessus.

4 pilules de Vallet.

Conserve de roses. . . 80 grammes.

Extrait de quina. 3 —

Limaille de fer. 1 —

7. Chaque jour les forces vont en augmentant ; la soif a cessé d'être aussi vive ; la faim se fait plus impérieusement sentir ; la malade commence à manger un peu de poulet ; la plaie faite au pli du bras est dans le même état que le premier jour : atonie complète ; les lèvres de cette petite plaie, réunies le lendemain de l'opération, avec des bandelettes imbibées de collodion, sont même, après la levée de l'appareil, beaucoup plus écartées que dans le principe.

On fait un nouveau pansement avec le baume du commandeur.

Prescription : Vin de Bordeaux.

6 pilules de Vallet.

Suspendez la conserve de roses, etc.

Frictions sur le dos et les cuisses avec le mélange suivant :

Alcool camphré.

Teinture de quina.

Id. de noix vomique.

8. Les jambes sont devenues le siège d'un léger œdème.

Prescription : *Ut supra.*

Ajoutez : Lait.

Régime, $\frac{1}{2}$ Poulet.

9. La malade peut descendre, aller à la garde-robe, et remonter dans son lit sans le secours de personne.

Prescription : *Ut supra.*
Régime, $\frac{1}{2}$, $\frac{1}{2}$.

10. Le bruit de souffle persiste dans les carotides ; le dévoiement a cessé.

Prescription : *Ut supra.*
8 pilules de Vallet.

11. Une réaction s'est déclarée dans les lèvres de la plaie ; des bourgeons charnus se forment ; la cicatrisation marche avec rapidité.

Prescription : Citrate de fer, 3 pilules de 0,05.
Le reste : *Ut supra.*

12. Les joues se colorent de plus en plus ; la bouffissure des paupières et de la racine du nez a disparu complètement.

Prescription : *Ut supra.*
Régime, $\frac{1}{2}$.

13. La malade s'est levée hier et s'est promenée dans la salle. Le soir, le membre inférieur droit est douloureux. Le lendemain, une *phlegmatia alba dolens* en occupe toute l'étendue, et s'accompagne d'un état fébrile.

Prescription : *Ut supra.*

Tout le membre est enveloppé de coton saupoudré de camphre et frictionné deux fois par jour avec le mélange suivant :

Baume tranquille.....	30	grammes.
Teinture de scille.....	30	—
Id. de digitale.....	30	—
Eau-de-vie camphrée.....	15	—

15 L'engorgement du membre est à peu près le même ; le pli de l'aîne est douloureux ; les lotions avec le liniment précédent sont suspendues et remplacées par des frictions faites matin et soir avec l'onguent napolitain et par l'application, pendant le jour et la nuit, de cataplasmes émollients, rendus plus calmants par l'addition de ciguë et de camphre, et arrosés avec une solution d'extrait de belladone. La malade garde le repos au lit.

16. Prescription : Citrate de fer..... 5 pilules.
Potion : Infusion de menthe.
Eau de canelle.
Extrait de quina..... 4 grammes.
Sirop de valériane..... 15 —
Id. d'éther..... 15 —

20. La tension de la cuisse et la douleur du pli de l'aîne ont cessé ; le mollet seul conserve un reste de tuméfaction. De jour en jour le teint se colore d'une manière fort remarquable.

22. Aujourd'hui, il n'y a pas trace de l'ancienne affection qui occupait le membre. On supprime les frictions et l'application des cataplasmes. Bronchite légère.

Prescription : Potion bichique simple.
Tisane de dattes et jujubes.
Lait.
7 pastilles de citrate de fer.

25. La malade recommence à se lever et fait quelques tours de promenade dans la salle ; la coloration de son visage a pris une nouvelle intensité ; sur la remarque qui lui en est faite, elle nous dit que c'était là son état habituel avant sa maladie.

Prescription : La même que les jours précédents.

29. Depuis le 25, notre malade n'a pas manqué de se lever et de passer dans la salle, assise ou à se promener la plus grande partie de la journée. Cette femme voyant son état s'améliorer si rapidement, avait manifesté plusieurs fois le désir de sortir de l'Hôtel-Dieu. Aujourd'hui M. Devay, après avoir constaté son état de parfaite santé, lui accorde son exeat. Elle nous quitte joyeuse et insouciante, comme elle s'est montrée durant la dernière moitié de sa maladie, et nous remercie avec la plus grande effusion. (Observation recueillie par M. Lardet, interne des hôpitaux) — *Gazette Médicale de Paris*.

Mémoire sur les hémorragies des cavités muqueuses; nouveau mode d'application de la glace dans le traitement de ces hémorragies, par M. CHASSAIGNAC.

Nous sommes nécessairement condamnés à faire tort au travail de M. Chassaignac, car l'un de ses grands avantages est de rendre plus saisissables, plus populaires, grâce à la piquante concision de la forme, certaines considérations de chirurgie pratique. Or c'est là un genre de mérite que l'analyse ne saurait s'approprier. Voici toutefois ce que ces recherches contiennent de plus essentiel, soit en fait de remarques, soit en fait de préceptes.

On ne se fait généralement pas une juste idée des dangers de l'hémorragie. De ce que la perte sanguine n'a pas continué jusqu'au moment de la mort, on est ordinairement trop porté à admettre qu'elle n'a point causé cette terminaison fatale. Et la répugnance qu'un médecin éprouve à en convenir, l'impossibilité de démontrer anatomiquement que le malade a péri par hémorragie, concourent encore à entretenir cette idée de la rareté des pertes de sang mortelles. Après avoir signalé ces causes d'erreur, M. Chassaignac fait observer que le sujet qui meurt d'hémorragie ne périt que très-rarement durant l'acte même de l'hémorragie ;

que celle-ci, soit spontanément, soit artificiellement, est presque toujours arrêtée un certain temps avant la mort ; que, en un mot, les cas de cette dernière espèce forment la règle, ceux de la première demeurant l'exception.

Du reste, l'hémorragie amène à sa suite des lésions graves et multipliées qui peuvent compromettre directement l'existence ; et ce n'est qu'en s'opposant de bonne heure à l'écoulement sanguin qu'on empêche ces complications d'atteindre le degré où elles deviennent incurables.

Ayant ainsi établi avec plus d'instance que ses prédécesseurs la gravité incontestable de toute hémorragie un peu sérieuse, M. Chassaignac est conduit naturellement à la partie thérapeutique de son mémoire où il s'est proposé de faire connaître les ressources qu'on trouve dans l'emploi local de la glace contre les hémorragies. Le fait qu'il cite en premier lieu montre admirablement l'héroïque pouvoir de cet agent bien manié. Il a rapport à une hémorragie très-abondante survenue chez une femme de 21 ans, bien portante, huit jours après l'ablation de l'amygdale droite avec l'instrument de Fanestock. Divers moyens astringents locaux avaient déjà échoué ; et l'urgence du péril avait décidé les consultants à l'application du fer rouge. Mais pendant qu'on le préparait une inspiration frappa M. Chassaignac. " Avant d'en venir au bouton de feu, dit-il, essayons un bouton de glace !" Il saisit alors avec une pince de Museux un morceau de glace du volume d'une noix, le porta sur le siège de l'hémorragie, où il le fit ensuite maintenir par la malade elle-même. L'hémorragie s'arrêta définitivement et ne reparut plus.

La facilité avec laquelle on peut saisir entre les mors des pinces de Museux un fragment de glace est une chose très-remarquable. M. Chassaignac, avant de l'avoir constaté, n'aurait pu croire à la puissance de ce mode de préhension. Ainsi, une masse réfrigérante, d'un volume assez notable, devenant à la fois un agent de compression et une cause de refroidissement, se moulant promptement sur la forme des parties par l'influence de leur chaleur propre, ne laissant échapper, par sa fusion, qu'un liquide inoffensif et nullement désagréable, n'obligeant pas par conséquent le malade à de continuel efforts d'expulsion, pouvant être ôtée et remise en place instantanément sans entraîner d'interruption dans l'action réfrigérante, pouvant être maintenue en position par le malade lui-même, et mettant à se fondre, même dans la cavité buccale, beaucoup plus de temps qu'on ne s'y serait attendu, voilà les avantages de ce procédé si simple dans son exécution.

Pour configurer le glaçon hémostatique à volonté et selon le lieu où il doit être placé, on peut tailler un morceau de glace avec un bistouri ou un couteau ; on peut encore en modifier la surface en pressant un

morceau de fer chauffé sur lui, ce qui fait fondre ses parties les plus saillantes.

Enfin, comme perfectionnement extrême dans l'exécution de l'idée, ne pourrait-on, au moyen des mélanges réfrigérants, faire congeler dans des récipients de forme déterminée, soit de l'eau, soit divers liquides doués d'une action médicamenteuse, astringente, styptique, etc.? — *Gazette Médicale de Paris.*

MIDWIFERY.

Deux cas d'accouchements prématurés artificiels, exécutés au moyen d'injections d'eau chaude, par le docteur Staenglmayr, à Liegenbourg

LA GAZETTE MEDICALE a successivement enregistré les nombreux accouchements prématurés artificiels principalement entrepris en Allemagne; aussi croyons-nous inutile de discuter à l'avenir l'utilité, pour ne pas dire la nécessité de cette pratique dans certains cas de vices de conformation du bassin.

Obs. 1.—Chez une femme déjà délivrée quatre fois avec beaucoup de peine d'enfants morts amenés avec le forceps, on entreprit l'accouchement à la trente-quatrième semaine de la cinquième grossesse. Quoique le résultat ait été malheureux, il ne peut pas être mis sur le compte de l'opérateur; en effet, la mort de l'enfant peut être attribuée à l'emploi du seigle ergoté, ou à la strangulation par le cordon ombilical, ou encore plutôt à une hémorragie du placenta détaché trop tôt.

Presque tous les accoucheurs de notre époque sont aujourd'hui d'accord sur cette grande conquête de l'art obstétrical; il n'en est pas de même des indications de l'accouchement prématuré et de la méthode à employer, ce qui nous engage à rapporter avec tous les détails l'observation suivante:

Obs. II.—Catherine Bachsmaier, âgée de 34 ans, paysanne, petite, faible, régulièrement menstruée depuis l'âge de 15 ans et accouchée heureusement quatre fois, était affectée depuis six mois d'une toux fatigante avec expectoration purulente.

Au commencement de février 1849, il se déclara un gonflement œdémateux des pieds, qui s'étendit peu à peu aux cuisses, aux parties génitales, au ventre jusqu'aux seins. Depuis huit jours la malade ne peut ni marcher ni se coucher. Toux fréquente, très-pénible; orthopnée; au toucher, qui était très-pénible à cause de la tuméfaction énorme des lèvres, on trouve le col de l'utérus dur, d'un pouce de long, l'orifice de l'utérus presque complètement fermé avec une cicatrice à gauche.

Depuis cinq jours la mère ne sentait plus les mouvements de l'enfant et demandait avec instance d'être délivrée, à quoi M. Staenglmayr se décida d'autant plus volontiers que la difficulté de respirer augmentait d'heure en heure. Pour arrêter les progrès de l'hydropisie, on fit quelques incisions aux jambes, aux lèvres et au bas-ventre, dont il s'écoula bientôt de l'eau.

L'accouchement prématuré fut entrepris le 1er mai, à la trente-deuxième semaine de la cinquième grossesse, au moyen d'*injections d'eau chaude* (33-34° R.) *faites pendant un quart d'heure avec une seringue utérine ordinaire et répétées trois fois par jour.*

Le 2 mai, soulagement notable à la suite de l'écoulement abondant de l'eau par les plaies des incisions et d'une déchirure spontanée dans l'aîne droite; col de l'utérus presque complètement effacé; orifice encore fermé.

Le 3, la malade, craignant l'augmentation de l'hydropisie, ne fit pas d'injections.

Le 5, on appela de nouveau M. Staenglmayr, demeurant à 5 lieues et demie de la malade. L'œdème avait tellement diminué qu'on sentait l'utérus à travers les parois du ventre. Au toucher, on trouva l'orifice utérin ouvert, très-élevé, les bords mous et tuméfiés, et à travers les membranes peu tendues, on sentait balloter la tête de l'enfant. On recommença les injections.

Le 6, nouvelle diminution de l'œdème; orifice utérin encore plus largement ouvert, ayant l'étendue d'une pièce de 6 livres; segment inférieur de l'utérus mince et mou. Les maux, jusqu'alors à peine perceptibles, devinrent bientôt très-forts par l'emploi de deux doses de seigle ergoté (75 centigrammes) donnés de demi-heure, en demi-heure. L'auteur rompit les membranes qui étaient très-épaisses; il s'écoula peu d'eau. Les maux continuèrent, et une demi-heure après, la mère mit au monde un enfant petit, mais bien développé, qui commença aussitôt à jeter de forts cris. L'arrière-faix fut retiré un quart d'heure après.—*Gazette Médicale de Paris.*

A successful Case of Parturition, in a patient who had previously undergone "ovariotomy" by a "large incision. BY JOHN CROUCH, Esq., M.R.C.S.

FANNY GOULD, the subject of this case, is now a fine healthy young woman, twenty-six years of age. In August, 1849, I extirpated, by a peritoneal section of nine inches, a multilocular ovarian cyst, weighing fourteen pounds, and containing not less than two hundred separate cavities. The operation and its subsequent treatment are described in

the 44th volume of the LONDON MEDICAL GAZETTE, and in the Provincial Medical and Surgical Journal for 1849. The tumour consisted of an hypertrophy of the left ovary, the cells of which contained an albuminous fluid of various consistencies. The fimbriated extremities of the left Fallopian tube were also much enlarged, and contributed a considerable portion towards the diseased mass. The patient's history from the above period is as follows:—About five weeks after the operation she walked the distance of five miles, to inspect the preparation of the tumour which had been extracted from her. During the winter, the catamenia appeared at regular intervals, and her general health continued good, with the exception of an occasional pain in the left groin, and a slight difficulty in micturition, sometimes followed and relieved by a muco-purulent discharge in the urine. In April, 1850, she fulfilled an engagement made before the operation, and entered the married state. In January, 1851, the menses ceased, and in a short time subsequently, the ordinary symptoms of pregnancy commenced. These were of a mild and healthy character—indeed, she never enjoyed existence more than during her period of gestation. The pain in the left groin, opposite the part where the pedicle of the tumour had been tied, the difficult micturition, and the deposit in the urine, entirely ceased. On the 9th of October, 1851, two hundred and eighty-two days from the termination of the last menstrual period, she was, after a lingering labour, safely delivered of a male child, weighing seven pounds. The infant was born in a state of asphyxia, with the umbilical cord tightly encircling its neck; but soon after the pressure was removed, it showed symptoms of vigorous life. One fact, connected with the cicatrix on the abdomen of the mother, is not unworthy of notice. It was previously feared that the expansive powers of the parietes of the bowels would be impaired by so large a scar passing through their centre: I was therefore agreeably surprised to find that, not only did the surrounding skin dilate without tightness or puckering, but that the cicatrix itself increased in length *three inches*, and in breadth *one-sixth of an inch*, during the period of pregnancy; thus affording an unusual and striking instance of the elasticity of newly-formed integument.

Fanny Gould has now been confined nearly seven weeks, and both the mother and child are doing well in every respect. The cicatrix has returned to the same dimensions as before the pregnancy; being five and a half inches in length, and one quarter of an inch in breadth. —*Medical Gazette.*

ART. VII.—*Cæsarean Operation.* Reported By Dr. M. M. RODGERS.

I SEND you for publication an account of a case of Cæsarean operation, which I have just seen performed by M. Paul Dubois, in the Hospital "*Clinique d'Accouchements.*" This operation, although far more common than in the United States, is by no means of frequent occurrence in Europe. M. Dubois, if I understood him correctly, said he had made the section eight times before.

The subject of the operation was an in-patient of the hospital; single woman, 24 years of age, primiparous, dwarfish, of rachitic constitution, nervo-bilious and lymphatic temperament, with deformed pelvis and inferior extremities. The pelvis was compressed so as to leave only $1\frac{1}{2}$ inch in the antero-posterior diameter, which was insufficient for the delivery of the child even after embryotomy. Labor commenced at the full period of gestation, and had been progressing slowly for about six hours, the amniotic fluid having been discharged during that time. Difficulty being apprehended by the "*internes*" and "*chef. du clinique*" in attendance, M. Dubois, Physician *Accoucheur*, of this hospital, was called in: after examination per vaginam, the Professor, by the concurrent advice of Prof. De Paul, decided upon the necessity of the section. This was at 9 o'clock in the evening, the woman being then somewhat exhausted, and the child still living, as shown by auscultation: the operation was, however, deferred till the next day at 10 o'clock. The patient was brought into the amphitheatre somewhat more feeble than the night before, although under the effect of anodynes and stimulants: she was laid upon her back on the operating bed, with the thighs flexed upon the body, and the shoulders raised.

The operation was commenced, (without chloroform,) by making an incision just opposite the umbilicus, and extending to the symphysis pubis, about eight inches: the first incision was made through the integuments; a small opening was then made through the peritoneum, and the incision finished by a bistoury and grooved director: the next incision was made through the walls of the uterus, about six inches long, when the child appeared in sight; it was extracted by the feet, dead; the cord was tied and the placenta extracted by the same orifice. The operation occupied about eight minutes exclusive of dressing. The bleeding was only slight from the incision; the edges of the wound in the abdominal walls was brought into coaptation and secured by interrupted quilled sutures, the incision in the uterus being perfectly closed by its contraction; adhesive straps, charpie, a compress and bandage around the body, finished the dressing. The patient, who suffered much from pain, and was much exhausted, was removed to her ward, and allowed an anodyne and hot

wine and water: she, however, was unable to rest, and reaction not taking place, she sunk rapidly, and died of collapse, thirty-six hours after the operation.

This was, doubtless, a fair case for the operation, and offered the only hope of saving either the mother or child: but the time to save the child was while it was alive; and after that was dead, the mother was too much exhausted to leave much hope of her recovery from so severe an operation; so that the delay in the case certainly was the cause of losing one if not both lives. But as I intended only to give the details of the operation, which was skilfully performed, I shall give no opinions, but leave others to draw such conclusions, and make such reflections as they please.—*Buffalo Journal*.

MATERIA MEDICA.

New-Lebanon, its Physic Gardens and their Products.

THE beautiful valley of New-Lebanon, situated about thirty miles east of the Hudson river, in the State of New-York, and noted for its attractive watering place, the resort of many pleasure-seeking travellers in the summer months, has long been celebrated for its gardens devoted to the culture of medicinal plants, with a view to the supply of apothecaries, druggists, and others in all parts of the United States. For a long time this business was solely in the hands of the people called "Shakers," who originated it as a regular pursuit, and who yet are largely concerned. During the past summer, whilst on a visit to the valley of the Hudson, we accepted an invitation from Mr. Henry A. Tilden, to visit his gardens and laboratory situated in the township and village of New-Lebanon, where he and his brother conduct an extensive business in the culture, drying and packing of plants, and the preparation of medicinal extracts. The Messrs. Tilden informed us that they have about forty acres cultivated under their immediate superintendence, somewhat in the following arrangement: 9 acres in Taraxacum, 2 in Conium, 3 in Hyoscyamus, 3 in Belladonna, 3 in Lettuce, 3 in Sage, 2 Summer Savory, 2 Stramonium, 2 Burdock and Dock, 1 Marjoram, 2 Digitalis, 2 Parsley, Poppies, and Horehound, 1 Aconite and Balm. The remainder are occupied with Basil, Button Snake Root, Blessed Thistle, Borage, Coriander, Feverfew, Hollyhock, Hyssop, Larkspur, Lovage, Marsh-mallow, Marygold, Mugwort, Mountain Mint, Southern Wood, Tansey, &c. The narcotics, especially the Hyoscyamus and Belladonna, require a rich soil, and they exhaust the land rapidly. These last attain a height in many instances of five feet, but in general from three to four. They are liable to be preyed upon more or less, at all seasons of their growth

by insects and worms peculiar to each, to such an extent in some instances, as to destroy the crop. *Conium maculatum* grows spontaneously in all that region of country, having become naturalized. It is seen along the roads, and in fields that have been abandoned for a time, attaining often the height of six feet, and presenting a striking object to the eye by reason of its sub-divided foliage. For this reason, the Messrs. Tilden do not cultivate this plant very extensively, but depend largely on that of spontaneous growth, which they gather from the country miles around, as far as the Vermont line, and in Massachusetts. It is probable that the *Conium* obtained in this way is really more active, weight for weight, than the cultivated, being less succulent. We noticed the *Valeriana officinalis* growing with great luxuriance, and as high as five feet, although its culture has not as yet been much extended. Besides the varieties cultivated, large quantities of indigenous plants are purchased from collectors in the West and South, which are required in their business.

Their factory or laboratory is an extensive oblong, three storied building, in the basement of which is a powerful steam engine which performs the double duty of propelling the powdering apparatus, and of driving a double acting air pump connected with their vacuum evaporators.

The recent plants intended for extracts are brought to the mill from the gardens, reduced to a coarse pulpy state by a pair of chasers, and subjected to a powerful screw press to extract the juice. This is clarified by coagulation, strained, and the pure juice introduced into a large vacuum apparatus, holding several hundred gallons, where it is concentrated rapidly to a syrupy consistence, at a temperature varying 110°—130°, almost entirely free from the deteriorating influence of the atmosphere. In the construction of this apparatus, they have had a view to great extent of tubular steam-heating surface, so as to be able to accomplish the very large amount of evaporation their business demands. The finishing apparatus is analogous to the vacuum pan of the sugar refiners. We witnessed the operation in progress with the thermometer standing at 112° F. They make annually about 8000 lbs. of extracts from green plants and roots, consisting chiefly of *Conium* 2000 lbs., Dandelion 2000 lbs., Lettuce 1200 lbs., Stramonium 500 lbs., Butternut 800 lbs., Belladonna 500 lbs., Hyoscyamus 500 lbs., and so on. Those extracts in the aggregate according to Mr. Tilden's estimate, are derived from about 300,000 lbs. of green material, and require the evaporation of more than 20,000 gallons of juice.

Besides these, a considerable amount of extracts are made from dry materials, both foreign and indigenous as Gentian, Rhubarb, Chamomile, Mayapple, Horehound, Cohosh, etc. They also are about engaging largely in the manufacture of extract of liquorice from foreign root.

In the powdering department they run burr stones and chasers, and use bolting and dusting apparatus. They powder large quantities of material on contract, besides that for their special business, amounting annually to from 50 to 60,000 pounds.

In the herb department, the quantity of material handled is very large. The plants are brought from the gardens into a large room in the factory building, where a number of girls are employed in picking them over to remove other plants accidentally present, and separating the decayed parts and the stems when desirable. They are then placed on hurdles, and exposed in the drying room till properly desiccated. Two presses are kept in operation, by which 2000 pounds of material are sometimes pressed in a week, and about 75,000 pounds per annum, including near three hundred varieties of plants.

At the time of our visit, thirty men and five girls were engaged in the several departments of their establishment.

When we consider the large amount of extracts of important drugs prepared in vacuo, which are thus thrown into the market to replace the former crude products, obtained by boiling down the juices, etc., in open vessels with a naked fire, according to the old method, we cannot but believe that much good will accrue to the medical practitioner in the increased power of these agents. The Messrs. Tilden have, thus far, been *directly* beneficial to the medical interests of the country. But they have also been indirectly useful by inducing their neighbors, the Shakers, from motives of competition, to adopt the vacuum pan, in lieu of the open boiler, in the preparation of their extracts. We have some few observations to make in reference to the medicine-producing department of this remarkable people, who received us kindly during a hurried visit whilst sojourning in their beautiful valley, but we are compelled to defer them till our next issue.—*Am. Journ. Pharmacy.*

OPHTHALMIC AND AURAL SURGERY.

The nature and treatment of Pustular Ophthalmia, as an illustration of inflammation and the healing process, in their simplest manifestation. By T. WHARTON JONES, F.R.S., Fullerian Professor of Physiology in the Royal Institution of Great Britain; Ophthalmic Surgeon to University College Hospital, etc., etc.

In its simplest and most uncomplicated form, pustular ophthalmia is characterised as follows:—The sclerotic conjunctiva, at some distance from the margin of the cornea, presents a small spot of inflammatory injection; the injected vessels often appearing to the naked eye as if isolated from all connexion with any of the neighbouring ones. There

is thickening of the conjunctiva in the situation of the injected spot, and in the centre of it some exuded matter. By this a pustule tends to be formed, but the epithelium, in consequence of its little cohesion, soon gives way, leaving a small abrasion covered with pus or puriform matter.

The inflammation extending, the continuity of the vessels of the spot of inflammatory injection, with those of the rest of the conjunctiva, comes to be distinctly visible. By-and-by inflammatory injection of the conjunctiva generally may supervene, but the injection continues greatest in the region of the pustule, or the abraded or ulcerated surface left by it. Some puro-mucous secretion attends this extension of the inflammation. Thus extended, the *pusular* may be considered to have passed into *catarrhal ophthalmia*.

Inflammatory injection, as observed in the web of the frog under the microscope, consists in an accumulation or congestion of red corpuscles in the blood, within the minute vessels of the affected part. The blood loaded with the accumulated red corpuscles, may, in some of the vessels, still be flowing, though sluggishly, like a thick viscid matter; but in most of the vessels the accumulated red corpuscles are closely agglomerated together, and, being adherent to their walls, block them up, so that the blood is stagnant within them.

“The vascular injection of the inflamed conjunctiva in man, as observed with the naked eye, or by means of a magnifying-glass, presents the same characters as the vascular injection in inflammation of the web of the frog, as observed by the same means. For this reason, and seeing that the plan of distribution of the smallest vessels in man appears to be similar to that of the distribution of the smallest vessels in the frog; moreover, knowing that the red corpuscles of the blood of man agglomerate together much more readily than those of the blood of the frog, we may fairly conclude that, in the vessels of an inflamed part in man, the red corpuscles of the blood are accumulated and aggregated together in a similar manner, though in a greater degree, to what we can directly observe in the frog. Indeed, if we were to judge from the comparative examination of detached parts of the human body and of the frog, in a state of inflammation, after death, we should expressly affirm the proposition.” (a)

Pustular ophthalmia is usually excited by exposure of the eye to a draught of air. As to the mode of action of this cause. “We have seen (to quote again from the same essay, p. 54) that the effect of the direct action of cold on the small arteries of a part, is vital contraction of their walls, and constriction of their calibre, and we have also seen,

(a) Astley Cooper, Prize Essays on the State of the Blood and the Blood-vessels in Inflammation. In Guy's Hospital Reports for October, 1850, p. 53.

that when all the arteries of a part are more or less constricted, there is sluggish flow of blood, with great accumulation of red corpuscles in the capillaries and veins, and here and there stagnation. A similar state of the blood and the blood-vessels to that here mentioned, is the only possible one which we can conceive as the first step to inflammation of a part of the human body, from the direct action of cold on it. The bluish redness of the affected part indicates great accumulation of red corpuscles in the blood in the venous radicles,—a state which, under the circumstances, can be owing only to constriction of the small arteries, whereby *vis à tergo* is diminished, and blood loaded with red corpuscles thus allowed to regurgitate into and accumulate in the small veins and capillaries.”

The apparent isolation from all connexion with any neighbouring vessels which the spot of inflammatory injection in pustular ophthalmia often presents, I infer, from what I have observed in the frog (Op. Cit. pp. 26—38), to depend on the following conditions:—

1. *On the Side of the Arteries.*—The artery or arteries immediately leading to the injected spot are invisible to the naked eye; being empty of blood, on account of their constriction and the stream from their feeder passing on by a lateral branch at some distance from the spot. Besides, such small arteries are invisible to the naked eye, unless gorged with accumulated red corpuscles.

2. *On the Side of the Veins.*—Those veins with which the venous radicles of the injected spot of conjunctiva communicate are invisible to the naked eye, in consequence of their not being gorged with accumulated red corpuscles, but having the flow of blood still free in them. [In the original, a diagram is introduced to illustrate these views.]

The increase of the inflammation around the original spot, I infer (Op. Cit., p. 55) to be owing on the one hand to the supervention of dilatation of the arteries leading to it, when it fails to produce resolution, allowing a greater quantity of blood, loaded with red corpuscles, to be poured into the vessels of the affected part than can escape, in consequence of the pre-existing obstruction from stagnation; and, on the other hand, to extension of stagnation in the veins leading from the affected spot. The extension of the inflammation to other parts of the conjunctiva, I infer to take place by the same process as that which led to the inflammation in the first instance, as above described.

The thickening of the conjunctiva in the situation of the injected spot, and especially the pustule or flake of matter in the middle, are manifestations of the exudation which has supervened on the inflammatory injection.

Under the influence of irritating applications made to the eye, the

vascular injection speedily disappears, and, at the same time, healing of the abrasion left by the pustule takes place; the spot becoming covered with a new epithelium, while the flake of puriform matter is thrown off.

The following extract, *Op. Cit.*, p. 60, gives a probable explanation of how the result is brought about:

“We have above seen reason to conjecture, that in inflammation of the conjunctiva, for example, from cold, or from the irritation of a foreign particle in the eye, it commences by constriction of the small arteries, which allows the blood corpuscles to accumulate in the capillaries and venous radicles. That in such a case, resolution is owing to dilatation of the artery and coincident acceleration of the flow of blood, we have above seen equal reason to conjecture. Nay, we have above shown, by experiment on the frog, that dilatation of the arteries, and the coincident acceleration of the flow of blood, are the first steps to resolution of inflammation,—an experiment, let it be repeated, which is an interesting illustration of the *modus operandi* of stimulating collyria, applied to the eye for the cure of catarrhal ophthalmia.”

The rapidity with which the cure of pustular ophthalmia is effected, depends on the length of time the inflammation has existed, and the degree to which it has reached. When the vascular injection is as yet confined to a spot, and abrasion of the conjunctiva has not extended beyond the pustule, a single application of a drop of the nitrate of silver solution (gr. iv. 3j.), or the like, is often sufficient. When the inflammatory injection and the abrasion of the conjunctiva have become more extensive, the application of the remedy may require repetition.—*Medical Times and Gazette.*

On the Treatment of Polypi of the Ear. BY JOSEPH TOYNBEE, Esq., F.R.S., Fellow of the Royal College of Surgeons of England, Aural Surgeon to St. Mary's Hospital, and Consulting Surgeon to St. George's and St. James' General Dispensary.

POLYPOID excrescences are not uncommonly met with in the external meatus, and they are generally the result of long-continued irritation of its dermoid layer. As a general rule, polypi of the ear are attached to the membranous meatus, although cases are sometimes met with in which they spring from the outer surface of the membrana tympani, and in one dissection I found a polypus growing from the inner surface of the latter organ. Polypi are always attended by an abundant discharge of mucous fluid, which often has so offensive an odour, that the patient is obliged, as much as possible, to avoid society. This affection is generally attended

by very little uneasiness in the ear. At times there is a sensation of fullness and pressure; but one of the most prominent and urgent symptoms is a sense of heaviness, which is very frequently accompanied by giddiness, and a feeling of confusion in the head; and sometimes there is a shooting pain, which extends from the ear to the temple. These head symptoms, which are often very distressing to the patient and alarming to his friends, appear to be produced by the pressure exercised by the polypus on the outer surface of the membrana tympani. This pressure on the outer extremity of the chain of tympanic ossicles produces a movement inwards towards the vestibule of the inner extremity; for upon careful examination of a specimen prepared for the purpose, it is manifest that, although there are two articulations between the long process of the malleus and the base of the stapes, the slightest movement of the processus longus mallei inwards causes the base of the stapes to be pressed inwards towards the cavity of the vestibule. After the observation of many cases in which head symptoms have been associated with affections of the ear, I have come to the conclusion, that pressure upon the contents of the vestibule may produce—1. A sensation of noises; 2. A feeling of giddiness; 3. Confusion of ideas. That these symptoms are produced by pressure on the contents of the vestibule, may be ascertained from the examination of cases in which collections of cerumen occur in the external meatus; for not unfrequently the medical man meets with instances in which continued noises and giddiness are present to so great an extent, that the patient is often obliged to stop when walking, and hold himself by the nearest object; and these symptoms wholly vanish immediately that the accumulation is withdrawn from the outer surface of the membrana tympani.

A careful examination of the ear by means of a speculum and a strong light, is at once sufficient to determine whether a polypus is present, premising that the ear has been carefully syringed with warm water so as to remove all discharge.

Polypi of the external meatus may be divided into three classes:—

1. The one of most frequent occurrence, and which may be called the vascular polypus.

2. That which has been termed the gelatinous polypus.

3. One that has not hitherto attracted the attention of surgeons, and which may be styled the globular vascular polypus.

1. The vascular polypus is of a red colour, plentifully supplied by vessels, and so soft that, upon being taken hold of by a pair of dressing forceps, it breaks up and blood escapes from the lacerated surface. The vascular polypus rarely increases to so large a size as to dilate the meatus; it generally grows from the wall of the meatus, about midway

between its outer orifice and the attachment of the membrana tympani. It is composed of small rounded cells, and its surface, which is sometimes covered by ciliated epithelium, is very smooth and shining. This polypus rarely extends further than the orifice of the meatus, where it can often be seen without the use of any artificial means; frequently it is confined to the inner half or two-thirds of the meatus. It is not uncommon for the vascular polypus to remain during several years throwing off its offensive secretion, without producing symptoms of a nature sufficiently urgent to induce the patient to apply for relief; in other cases, the head symptoms soon become so distressing as to cause serious alarm.

The treatment generally adopted of applying astringent lotions and drops, or of touching the surface of the polypus with the solid nitrate of silver, has, in my hands, been quite useless; and so far as my experience has extended, all attempts at extraction fail, because the polypus breaks up immediately that any force is applied to it, and it again rapidly grows to its former size. After having been long baffled in the treatment of vascular polypus, and having tried by a great diversity of applications to cause its disappearance, I resorted to the use of the potassa cum calce, and thus far my success with it has been sufficiently great to induce me to recommend its use to the Profession. I will proceed to describe the mode in which it has been applied. In the first place, it is important that the substance used should be made into very thin sticks; those supplied to me by Mr. Squire as recommended in a paper by Dr. Henry Bennett, answer the purpose extremely well, so long as they retain their size and form; but, as this substance deliquesces very rapidly, it is important that the greatest care be taken to keep it excluded from the air. For use at St. Mary's Hospital, the potassa cum calce has been supplied by Bailey, of Wolverhampton; (a) and it differs from that I had previously used in containing a small quantity of iron, which addition makes it firmer and harder, and it deliquesces much less rapidly than when prepared in the usual way. Perhaps the latter preparation, in not requiring so much care in its application is to be prepared for hands unaccustomed to its use; but the one supplied by Mr. Squire is certainly the most efficacious.

In the application of the potassa cum calce care is requisite so as to avoid touching the surface of the meatus; it is so extremely sensitive, that the pain produced by the action of an escharotic upon it is very acute. The polypus, on the contrary, possesses little or no sensibility; if, therefore, the application be carefully made, the operation is not

(a) The large sticks sent by Bailey, were re-cast into smaller ones by Messrs. Hopkin and Williams, of New Cavendish street.

attended by any pain. The mode of proceeding which I am in the habit of pursuing, is as follows :—The external meatus having been syringed with tepid water, so as to remove the whole of the discharge from the surface of the polypus as well as from that of the meatus, the tube and polypus should be dried by a portion of fine cotton wool attached to the end of a probe. A portion of glass tube, about an inch and a half long, should then be selected, and care ought to be taken that it is so embraced by the meatus, that it is not liable to be shifted from its position by any movement of the head of the patient. (a) This portion of glass tube is to be introduced into the meatus, and passed inwards as far as the polypus, when, by a gentle pressure, a portion of the free extremity of the polypus is made to protrude into the interior of the tube, and is surrounded by it. Upon looking into the tube, and ascertaining that the polypus is embraced by its inner extremity, the tube is steadied by the left hand, and with the right a portion of the potassa cum calce is passed inwards, and gently pressed against the polypus. If a pair of rectangular forceps (b), be used neither the hand of the surgeon nor the instrument he employs, prevents the operator from seeing the polypus while he is making the application, and he can, therefore, be sure that he touches the whole of that part of the growth which is in the tube. (c) The immediate effect of the application of the potassa cum calce upon the surface of the polypus, is to change its colour from a bright red to a livid hue; and this takes place without any pain being experienced by the patient, if the meatus has been completely guarded. After the application has been made, the patient should sit still for three or four minutes, and the tube allowed to remain as it was fixed during the operation. Upon inspecting the polypus at the end of these minutes, it will be found to have changed to a dark purple colour, to have blood oozing from it, and, instead of its former rounded extremity, it presents an uneven, pulpy mass. The meatus is now to be syringed out with tepid water, when blood, mixed with the *débris* of the polypus, will come away; the surface of the polypus still remains of a dark colour, and during several hours, a process of slow dissolution takes place in all that portion which the escharotic has reached.

[To be continued.]

(a) It is perhaps scarcely necessary for me to repeat here, that when possible, oval-shaped, instead of round tubes, ought to be used for insertion into the outer ear.

(b) These are made by Weiss.

(c) In the uncertain atmosphere of London, I use Mr. Avery's lamp, held between the teeth, and thus leave both hands at liberty; but a good sun light, or even the bright light of a fine day, is quite sufficient.

Canada Medical Journal.

MONTREAL: MARCH, 1852.

THE CANADA MEDICAL JOURNAL.

FOR the last seven years, Dr. Hall has conducted with great ability, the "*British American Journal of Medical and Physical Sciences*," and few amongst his Professional Brethren took a greater interest in the success of that periodical, or rejoiced more, as it gradually became the representative of the progress of Medical Science in Canada, than the writer of the present article. When Dr. Hall determined to discontinue the management of his Journal, he offered it to the writer, on condition, that he would assume its liabilities and take its assets as an equivalent. To this proposition he dissented, preferring to commence a new Journal, on a more extended plan, and free from all pecuniary embarrassments—a project he had long contemplated—and from entering upon which, he was prevented, solely, from his conviction, that the *British American Journal* having already done so much for the Profession, and its Editor having devoted so much time and labour to his task, personal motives should be laid aside, and his best assistance extended to the Journal already in existence. But, when that Journal ceased to exist, he felt himself freed from these self-imposed restraints, and determined to make an effort to establish and maintain in this Province, a periodical, which should be, not merely a means of communication between the members of the Profession of all origins, but the repository of much valuable matter—the result of observations by Physicians in our large and daily increasing cities and towns, and in the rural districts of this immense Province. It was, in addition, contemplated, to make it a *Monthly Record of Medical Science*, and to publish an abstract of scientific information suited to the requirements of the practitioners of this country—gleaned from the Periodicals of Europe and America. Having decided upon the undertaking, he was particularly fortunate, to obtain as colleague Dr. David, a gentleman occupying a high position in his profession, and whose abilities for the duties he has assumed, are too well known to require further confirmation.

The CANADA MEDICAL JOURNAL will be the scientific organ of the profession generally, without reference to parties, schools, or colleges;

and, consequently, the Editors have decided upon avoiding all subjects of a mere party character, whilst they freely open their pages to those who may wish to discuss these matters, provided their communications be authenticated with the signatures of the writers, and be couched in temperate and becoming language.

The Editors have no doubt, from the support that has already been promised them, by the leading members of the profession in this and the sister cities, and the plans they have adopted for the management of the Journal, that it must succeed; but to put the matter beyond doubt, they must remind their readers that the *British American Journal* was discontinued because its subscribers did not fulfil their part of the contract, by regularly and punctually paying their subscriptions, and that the supporters of the CANADA MEDICAL JOURNAL will best evince their desire to patronise a Journal devoted to the diffusion of medical knowledge, by cheerfully and promptly remitting their subscriptions. The Editors do not expect any pecuniary remuneration for their trouble; all they hope for is, that the Profession will, by their *real* support of this Periodical, enable it to cover the expenses of its publication.

If there be some among their readers who doubt the possibility of their obtaining sufficient original matter for the Journal, they would remind them of the fact, that in Toronto, there are three Medical Schools, one Hospital, one General Dispensary, a Lying-in-Hospital, and the Provincial Lunatic Asylum. In Kingston, the Provincial Penitentiary, and a General Hospital; in Bytown, two Hospitals; in Montreal, three large Hospitals for Medical and Surgical Diseases, two Lying-in-Hospitals, a General Dispensary, an Eye and Ear Institution, and three Medical Schools; and in Quebec, there are the large Marine Hospital, the Hotel Dieu, the Provincial Lunatic Asylum, and a Medical School.

Assuredly, they do not expect too much, when they look forward to the medical officers and lecturers connected with these establishments supplying sufficient material both of a useful and interesting character for the original department. But they do not depend alone upon this source, they look forward with confidence, to the assistance they will receive from the numerous intelligent practitioners settled in the country parts of both Provinces, who are daily encountering important cases, and observing new and peculiar forms of disease; a striking illustration of what is now stated, being furnished by the interesting communications of Drs. Sheriff and Van Courtland, published in the present number.

In the Reviews and Bibliographical notices, they purpose making as copious extracts from the most recent works, as the limits devoted to this branch will permit; and their verdicts of the value of the works submitted to their judgment, though perhaps not so elaborate as those

appearing in some of the British Journals, will, at least, be as honest, and as impartial, for they are removed from the influence of authors and publishers, and from the agency of cliqueism and coteries, which are said, to direct much of the criticism of European periodicals.

R. L. MACDONNELL, M. D.

Montreal, February 10, 1852.

THE undersigned deems it an act of courtesy and justice to the subscribers to the BRITISH AMERICAN MEDICAL AND PHYSICAL JOURNAL, in announcing its discontinuance, to state the reasons for such a procedure on his part.

In a Circular issued to every subscriber in arrears on the 15th December last, it was remarked, "that the Journal must cover its expenses, or it must cease to exist," and that the result of that circular should determine the permanence of the Journal, as the organ of the Profession in these Provinces, and their representative in other countries,—thus leaving the matter entirely in their hands. To that appeal, urgently made, and at a time when the undersigned was in advance to meet the demands of the printer, a comparatively mute voice has been returned; and, in obedience to the decision thus solicited and pronounced, the Journal is discontinued accordingly.

The following statement will exhibit the liability of the Journal for the current volume:—

DR.		<i>The B. A. J. in account with the Printer.</i>	
To publishing nine numbers,—four at £10 each, and			
five at £12 10s. each,.....		£102 10 0	
CR.			
By cash paid for printing,.....		59 15 8	
			£42 14 9
		<i>The B. A. J.—DR. —to Cash.</i>	
To Subscriptions received for Vol. 7, to this date,....		£72 17 6	
CR.			
By cash paid for printing,.....		£59 15 8	
By cash paid for postages, express, stationery, &c.,.....		7 2 1	
			66 17 4
Balance in hand,.....			6 0 2
Balance due for printing at this date,.....		£36 14 7	

Superadded to this personal liability for the current volume, there is also the additional one of £120 still due from the publication of the first five volumes. This large sum the undersigned has no idea what-

ever of augmenting; and if the Journal is now discontinued, the fault lies not with the Editor of the Journal, but with those who have proved themselves its patrons but in name. To cover, however, this liability, the Ledger of the Journal exhibits assets sufficient, it is calculated, to cover that amount, (about £450,) for the early realization of which, the accounts are transferred to the present publisher, Mr. J. C. Becket, who, after the expiration of one month, will adopt such proceedings for that purpose as, in his judgment, may seem best.

To those Subscribers who have responded to the call made upon them, the Editor returns his thanks, not only for that avowal of their good wishes in favour of the Journal, but also for their warm expressions of friendship towards himself. With these the bond is severed.

With his various Exchanges, whether in the United States, Great Britain, or France, the Editor parts with pain. Their periodic visits have been hailed with extreme pleasure; and while he could not, therefore, but consider himself as constituting a link of that brotherhood devoted to the advancement of a noble profession, whose grand object is the alleviation of human suffering, an intercommunion became insensibly established, which identified him with professional proceedings in other countries. This, also, is at an end.

During the last seven years, the Profession of these Provinces has passed through its transition—its most stormy—period. The ark is barely yet in its haven of rest, but the Pilot that has conducted it, (and this is not saying much for the Journal,) ceases to exist. *Its* mission, possibly, has been accomplished. Another Journal may arise, not destined to encounter the storms, which have on more than one occasion, previously, periled the existence of the last. Should such arise, under the conduct of abler hands, it may, perchance, meet with a more encouraging success than that which the *British American Journal* has experienced. We sincerely hope it may do so. The Editor trusts, however, that whatever good the *British American Journal* has effected, will long survive the remembrance of its name.

To those gentlemen who have contributed to the Original Department of the Journal, the Editor returns his warmest thanks. It was to their pens that the scientific reputation which the Journal certainly acquired, was entirely due, and it has been his pleasing gratification to have found, in accordance with his expectation as published in the Prospectus, that, with the opportunity afforded, facts were elicited and placed on record, both in Medical and Physical Science, which, under other circumstances, would have still remained unrevealed. The labours of the Projector and Editor are amply rewarded in this.

And in conclusion, to the Subscribers, Exchanges, and Contributors,

the Editor has but to say that word, so painfully difficult to utter after years of intimacy, yet indicative of separation,—FAREWELL.

A. HALL, M. D.

[We place before our readers the above statement, that they may fully comprehend the expenses and risks connected with the management of a Medical Journal in this Province, and to apprize them of the impossibility of conducting the present one, unless they promptly remit their subscriptions in *advance*.]

St. Patrick's Hospital.—This hospital is now in complete working order, and contains a large number of patients, labouring under various diseases; many of whom have come from a great distance to avail themselves of its advantages, and obtain the advice of its medical staff. Practitioners in the country, who may wish to obtain admission for patients requiring the comforts of an hospital, must apprize them that they will be charged a small sum for their board, whilst under treatment; but no charge will be made for surgical or medical attendance, if they bring a certificate from a physician or clergyman, of their being destitute, and proper persons to receive the benefits of a charitable institution. Private patients of the Medical Staff are admitted at a weekly charge of from one dollar upwards, for board. This arrangement will be found, we doubt not, of great convenience to many of our brethren in country parishes, who frequently are obliged to forego the attendance on patients, because they have no place in which the sick man can be nursed properly. To such patients, St. Patrick's Hospital will prove a comfortable asylum.

Montreal Eye and Ear Institution.—We are glad to learn, from the Annual Report of the Committee of Management, that this institution maintains its character for usefulness; and that there has been an increase in this year's number of recipients of its benefits. Mr. Howard has our best wishes for the success of his undertaking. Amongst the diseases, we observe that he has operated for cataract on 26 patients, and for artificial pupil on 10. We hope he will lay before our readers the results of these operations.

Montreal General Hospital.—At a recent election for the post of physician to this establishment, Dr. R. P. Howard was elected by a large majority. We congratulate the Governors upon their selection, and have every reason to hope, that our pages will frequently bear witness to the zeal and industry with which Dr. Howard will turn to account the advantages now open to him.

St Lawrence School of Medicine.—It will be perceived by the advertisement in the present number of our Journal, that the Lecturers of the above named Institution, intend delivering a Summer Course, which will embrace those subjects, of Medicine, Surgery, and Obstetrics, not usually treated of in the Winter Lectures.

Obituary.—At Chambly on the 6th Feb., at the age of 54, Timothé Kimber, Esq., M. D., one of the Board of Governors of the College of Physicians and Surgeons of Lower Canada.

Pure Chemicals.—We have received from Messrs. S. J. Lyman & Co., specimens of Nitrate and Oxide of Silver, of their own manufacture, and have much pleasure in bearing testimony to the excellent qualities of these drugs. The Nitrate of Silver is purer than any we have ever seen imported. Our Chemists should be encouraged to manufacture for themselves, as there is no reason why many articles might not be made just as good, and at as reasonable prices here, as in the Mother Country.

Notice to Contributors.—The Editors having decided upon publishing articles from their Canadian confrères, in the French language, and have been promised the assistance of Dr. Peltier in the correcting of the proofs, and superintendence of the printing of these papers; they hope, therefore, to hear frequently from them, as one objection to their writing is thus removed.

To Subscribers.—As a copy of this number of the Journal will be forwarded to every practitioner in the Province, it is requested that those, who do not intend subscribing to it, will return the number, with the word *refused*, written over their names and addresses.

Prescriptions.—The Editors request contributors to write their prescriptions in *English* or *French*, and as concisely as possible, in the reports of their cases, as much trouble, both to themselves and the printers, will thereby be saved.

Notice to Correspondents.—Communications for the next number have been received from Drs. Nelson, Arnoldi, Peltier, and MacDonnell, and from the Rev. Mr. de Sola, who has promised a series of papers on the Sanatory Institutions of the Ancient Hebrews, as bearing on modern Sanatory Regulations.

CANADA MEDICAL JOURNAL.

VOL. I.

MONTREAL: APRIL, 1852.

No. 2.

ORIGINAL COMMUNICATIONS.

ART. VI.—*Cases of Hernia, with observations on wounds of the Intestines.* By WOLFRED NELSON, M. D., &c., Provincial Inspector of Prisons, &c., &c.

SHOULD the following narrative of a case of Hernia be deemed worthy of record in your Journal, it is quite at your service. It appears to me to possess some interesting features, and may not be entirely unworthy of the notice of your readers. It has made an indelible impression on my mind, and has led me to pay more attention to this part of surgery than any ordinary case of strangulated bowel would have done.

In the month of March, 1811, I was requested to see a man 60 years of age, who was reported to be at the point of death. "He was just brought in from the sugar bush, where, for the last two days, he had suffered violent pains in the belly; could not go to stool, and was incessantly vomiting, and withal, had a large swelling at the bottom of the body." From this brief detail, I at once inferred the existence of strangulated scrotal hernia. I found the man cold, bathed in a profuse clammy perspiration, with constant hiccup, very weak, and almost pulseless. He had for many years been affected with a scrotal hernia, and now it was the size of a quart decanter. After administering a large dose of laudanum and ammonia, and waiting some time for its anodyne effect, I proceeded with the utmost caution to reduce it by the taxis; but my efforts, though at first gentle, then, more forcible and persevering, proved ineffectual. He was then told, that the only chance for his life was through the means of an operation. This was at once submitted to. An incision was made a short distance from above the protrusion, and carried down to near the bottom of the scrotum, at least seven inches long; after a little careful dissection, the sac was punctured,

and about an ounce of dark colored serum spirted out ; it was then opened from end to end, and immediately the bowel bulged out ; it was of a deep chocolate hue, indeed it was so dark and livid, that I should almost have taken it to be mortified, if Traver's work on "Injuries of the Intestines" had not been present to my mind. It was with the utmost difficulty I could insinuate the tip of my finger under the tight, hard edge, of the ring ; a slight touch with the bistoury caused the tense tendon to expand considerably, quite sufficient for any common case of rupture ; it was dilated again and again, but the bowel would not recede, notwithstanding that I urged it forward with my expanded hands, gently, but persistently ; it being so extremely tender and distended, that further effort, I apprehended, would cause it to burst, and thus make matters worse. Under this emergency, I at once plunged my lancet, transversely, in the bowel, when out gushed at least a pint of liquid fæces and serum, and a good portion of gas ; the bowel, perforated as it was, was returned into the abdomen ; the wound closed, and a large soft compress was put over the inguinal region, and confined there by means of a broad flannel band, with which the abdomen was swathed. The utmost quietude was enjoined ; nothing but a spoonful of tea or weak broth, at distant intervals, was allowed. In the evening, an enema was administered, which brought away some fæcal matter and wind. Not a single unfavorable symptom occurred, and in a few weeks, he was quite well, and lived to the good old patriarchal age of four-score years.

Since that time I have punctured the intestine on a few occasions, and I must be candid enough to admit, on a couple of them, without absolute necessity, yet did not the smallest appreciable injury arise from the procedure.

Perhaps a few remarks on the above case may not appear irrelevant or inopportune ; and may, perhaps, have the effect of drawing the attention of other operators to a line of conduct, new to them, perhaps, but which, under similar contingencies, they may be disposed to follow, and I trust, with equal success.

When I performed the above operation, I had not seen John Bell's matchless work on wounds, a work, which it is quite safe to predict, will ever be looked upon as a standard and correct authority on the nature and cure of wounds, else it might be suspected that I had, in a great measure, been guided by his remarks on wounds of the intestines. I was, however, influenced by the very same reasoning that induced him to come to the conclusion that injuries of the bowels were not so dangerous or necessarily fatal, as it was thought they were, in his day, and as they are deemed to be, at this very period. This is the logic I used on the occasion. If wounds of the abdomen were so fatal, how comes it,

that a bullet has passed through and through the body without causing death ; and the bayonet has a thousand times been pushed through the belly and made its appearance opposite, and still the soldier lived ; the sword of the duellist, in innumerable instances, has pierced the antagonist and pinned him to the ground, and still he got well ; and I have witnessed a few cases, where pitchforks have entered the whole length of the prongs, yet death did not ensue, and such events have been so frequent that they cannot be called exceptional cases. Seeing, I thought, it was impossible that in all such occasions, the intestines and other viscera could escape injury, how was it, that their contents did not flow out into the abdominal cavity ? Because, I replied in my soliloquy, for I had no one to consult with, there is in reality no cavity or empty space there ; all is filled up and kept in juxta-position by the abdominal muscles and atmospheric pressure, to overcome which it would require considerable distention in the bowels, or an increased or inordinate activity of the peristaltic motion. In this case, both stomach and bowels had been pretty freely emptied by vomiting of stercoraceous matter ; and the collapse that would naturally ensue, and indeed existed, would for a time at least keep all in a state of quiescence, than which, no event could be better adapted to prevent excitement and inflammation. On these principles it was, I felt pretty sure, that there could be no effusion into the peritoneum, nor much inflammation to be apprehended. The result fully justified my expectations, if it did not completely confirm my reasoning on the subject.

Not long after the above occasion, I obtained "John Bell on Wounds," and was highly gratified to find that he corroborated the views I entertained with regard to wounds of the abdomen. At page 324, 3rd Ed., we find the following graphic remarks : "The whole mass of the bowels is alternately pressed, to use a coarse illustration, as if betwixt two broad hands, which keep each turn of the intestine in its right place while the whole mass is regularly moved," and goes on to say, "we find a person, after a wound of the intestine, having free stools for many days ; and what is it that prevents the fæces from escaping, but the regular and universal pressure ?" On this, as on most other subjects, this eminent surgeon expresses his sentiments with peculiar clearness, a good sense that is at once convincing, and in a style that leaves a lasting impression. He thus explains the cause of the prompt healing of certain injuries of the bowels : "The tendency of the peritoneum to inflame is the chief cause of danger, as *also of the only means of safety.*" "It is thus that in a few hours the adhesion is begun that is to save the patient's life."

On entering upon my career, Pott was the great authority of the day on surgical matters ; one which on most important points in surgery is referred to, or cited at the very time as a sure and safe guide, and one

that is not cast into the shade, even by the great names of Astley Cooper, Scarpa, or Lawrence ; but still, it appears to me, that his ideas with regard to injuries of the intestines, are not characterized by his usual good sense, judgment, sound views, and discernment, and evinces pusillanimity, little in harmony with his usual decision and boldness. Such was the dread he entertained of the smallest injury to the bowel, that a mere scratch would almost induce him to pinch the part up, and stitch it with a waxed ligature, lest, through the merest possibility, a single drop of intestinal fluid should escape. This sentiment led him to deprecate in the strongest terms any operation on the part. In Earle's edition of his celebrated works, vol. 2, p. 62, he alludes to puncturing the bowels in this wise : " There is another method of endeavouring to obtain relief in this case, which has been proposed by few, and I hope practiced by, fewer (though I have seen two patients upon whom it has been tried and were both destroyed by it) ; it is the making of several punctures with a round needle through the hernial tumor into the gut, in order, it is said, to let out the air which is *supposed* to distend the latter, and prevent its return ;" and goes on saying, " it is really too absurd to waste either my own or the reader's time about it." Now, the causes of death in these two patients originated from the non-performance of the usual operation, far more probably, than from the puncture by the round needles.

I freely acknowledge, that I should not hesitate to puncture the hernial tumor with an exploring needle or trocar, if I was satisfied that the swelling was mainly caused by gas, whether originating in the intestine itself, or coming from above the stricture, of which event, I could readily conceive ; and I have in many instances, while practising in the country, seen the scrotum immensely distended in this manner, and have heard a regular roar of wind pass up, followed immediately by the return of the bowels.

Although it may militate against the position I am disposed to assume, I fear not to cite the great authority of the learned William Lawrence, than whom, no country has ever produced a more zealous and scientific surgeon, and he is quite as dogmatic on this subject as the illustrious Pott himself. He lays down this rule : " When a small opening is found in the intestine, we should pinch up the aperture, tie it tightly, cut off the ends close to the knot, and then return the bowel." A little further on he says : " Should the intestine receive a large wound, it might be necessary to employ ten or more points of suture, or to unite the parts by the uninterrupted suture." !!!

But if I have such high authority against me, I have, on the other hand, several great names to sustain the position I have assumed, besides a vast amount of experience that might be adduced. The distinguished

German surgeon, Richter, says: "I have sometimes seen that such small wounds of the intestines in operation for hernia were little thought of, and were unattended with danger. The equally able Jobert asserts, 'the intestine may be returned without suture, if the wound does not exceed three lines.'"

In Bœrhaave's Aphorisms, (314), we are told: "If the intestines are injured with small wounds, they may be left to themselves;" a practice, in my very humble opinion, far preferable to "wrinkling them up," as Bœrhaave remarks, by ligatures; and his commentator, Van Swieten, states, "that even pretty large wounds of the intestines have been cured spontaneously, though they were sufficient to let out the contents. In another place, this indefatigable writer makes the following statement, one which is in direct opposition to the *dictum* of Lawrence: "If the bowel should continue distended with flatus, the distended part may be punctured with a needle in several places to discharge the flatus."

As a pendant to the above most respectable authority, and in support of the position I have dared to take, I shall transcribe from John Bell the following interesting case, to which Van Swieten refers also, that "delivered by Mr. Lithe, in 1705. It is the case of a madman who stabbed himself with eighteen wounds in the belly, and of these eighteen wounds made with a long and sharp pointed knife, eight penetrated into the cavity of the abdomen. Under the judicious treatment adopted, he recovered. But here lies the important point: eighteen months after, he threw himself from a high window, and died upon the spot. Upon opening the body, it was found, *first*, that the liver had been wounded, and had adhered in its middle lobe to the inner surface of the peritoneum; *secondly*, the jejunum had been wounded just below the stomach, with a cut *half an inch* in length, across the gut, and this intestine, lying deep, was not pressed against the internal surface of the belly, but was kept in close contact with a contiguous turn of the same gut. The two turns of the intestine adhered to each other; on the one intestine was the scar of the wound, while the other turn of intestine, to which it adhered was sound; *thirdly*, the right side of the colon had been wounded with a cut of *an inch in length*; the adhesion here was to the inner surface of the peritoneum by eighteen or twenty long thread-like tags of cellular membrane, arising from one of the greatest scars in the belly." John Bell's remarks on the old method of stitching up a wounded gut are full of sound sense and good instruction, and quite interesting, from his peculiar way of censuring what he deems gross and absurd errors; to neighbour and kinsman he is equally unsparing of his lash, when he believes it to be well merited!

The object I have in view in publishing my first operation for stran-

gulated hernia, is not to boast of its success, nor yet to recommend the practice on all occasions, but merely to prove that wounds of the intestines are not so fatal as they are generally said to be, and that a surgeon should never be devoid of resources, nor hand over to certain death, cases, that might be saved by a bold but judicious departure from general rules. It seemed to me, that I was placed on the horns of a dilemma. To have dilated the ring, I would almost say the abdominal parietes, sufficiently for admitting of the easy return of the bowel, enormously distended as it was, would have exposed the epigastric artery to injury, and might have induced peritoneal inflammation; and, on the other hand, to have used as much force as required to return the bowel, would have certainly exposed it to tear or burst, being very tender, and almost black, and, therefore, I had no other resource but emptying the bowel.

On some future occasion I may communicate the particulars of a recent and fatal case of Inguinal Hernia, that had been repeatedly strangulated, but when returned, there remained a fullness in the canal that denoted the pressure of something unusual, most probably of the sac, much thickened and firmly attached to the part. Upon operating, this proved to be the case. On the fourth day the operation was reluctantly submitted to, and as reluctantly performed, and that as a "forlorn hope," seeing there were great pain, tenderness and tension of the abdomen, attended with vomiting and hiccup, and other marks of approaching, if not of actual, gangrene; the superincumbent parts adhered firmly to the sac, and this to the intestine, the whole forming, as it were, one homogenous mass. On attempting, with the utmost caution, to separate the parts, the bowel was slightly punctured, on which a little gas escaped. The bowel was quite black and of a *dull* hue. Notwithstanding every effort it was advisable to make, complete reduction could not be obtained, in consequence of the adhesions. The patient, however, felt easier for a short time; but the hiccup continued, and all the symptoms denoted mortification, and, forty hours after the operation, he died. No persuasion could induce the friends to permit a *post mortem* examination.

ART. VII.—*Cas de Fracture comminutive de l'Astragale, avec observations*, par HECTOR PELTIER, M.D., Edimbourg, Professeur d'Institutes de Médecine de l'Ecole de Médecine de Montréal, un des Médecins de l'Hôtel-Dieu, Médecin de la Maison St. Joseph, du Dispensaire de Montréal, un des Médecins de l'Assurance "National Loan fund" sur la Vie, et membre de plusieurs sociétés Médicales, etc etc.

Je profite de l'occasion favorable offerte par les Editeurs du présent Journal de Médecine pour donner publicité au cas suivant dans ma langue maternelle, et je les prie de recevoir d'avance mes bien sincères remerciements.

Le cas dont je veux entretenir les lecteurs du Journal, est un des plus intéressants que j'aie rencontré et qui fait honneur à la chirurgie moderne et le seul que je connaisse de son espèce. Un nommé Poirier, maçon, âgé de 40 ans et résidant dans Montréal, tomba du deuxième étage d'une maison rue St. Paul, appartenant à M. Benoit, le 9 Juillet 1850, à 7h. du matin. Il tomba sur les pieds, le pied droit glissant sur la chaîne du pavé. Il fut transporté de suite à l'Hôtel-Dieu. Le Dr. Munro, le Médecin en chef du dit Hôpital, fut aussitôt appelé et comme on l'avait prévenu que c'était un cas qui selon toute apparence réclamait une amputation immédiate il m'amena avec lui en consultation.

Le malade fut interrogé minutieusement et la plaie examinée attentivement, nous trouvâmes une fracture comminutive de l'astragale avec déchirure des parties molles et perte de sang assez considérable. La malléole externe sortait en dehors de la plaie de manière à faire presque croire par les mouvements qu'on y faisait qu'il y avait également fracture du Péroné. L'astragale, par sa fracture complète s'était retournée sur son axe, de manière que sa portion articulaire tibienne se présentait à travers les parties molles à la partie externe du pied et non pas en avant. Le ligament externe était complètement déchiré.

Une plaie semblable avec fracture et cela dans une articulation nous fit hésiter un moment sur ce que nous devions faire! Pendant que notre esprit était ainsi en oscillation (moment terrible et que le vrai chirurgien seul sait apprécier), le Dr. Munro avait la main dans la plaie et remuait la partie fracturée de l'astragale, lorsque, à notre grande surprise, toute la portion articulaire tibienne fut enlevée avec la main. Le Dr. Bibaud, que l'on avait fait appeler, arriva au même instant. Nous décidâmes alors tous trois de laisser la nature opérer la guérison, sachant bien que si les choses n'allaient pas, nous pourrions encore avoir recours à l'amputation de la jambe. Heureusement que la nature, toujours si sage et qui se joue quelque fois du médecin, guérit notre homme. Il pût quitter l'hôpital le 26 Août 1850, c'est à dire, 48 jours après

l'accident. Il a marché, à l'aide d'une canne, en boitant pendant plusieurs mois. Je l'ai vu fréquemment depuis plus d'un an et il marche bien facilement, ne se sert plus de canne, et boite très-peu.

Je dois ajouter qu'il n'y a pas d'ankylose complète, puisque le pied a conservé des mouvements faciles et que le raccourcissement est peu considérable.

Il s'est donc formé là une autre surface de glissement pas aussi entière que la véritable.

La portion d'os enlevée est en la possession du Dr. Munro.

Ce cas est comme l'on voit un des plus beaux résultats de la chirurgie moderne. Personne n'ignore que depuis plusieurs années la chirurgie a changé de face ; autrefois quand on prononçait le mot chirurgien, il nous semblait voir l'homme de l'art avec tous ses instruments, prêt à ne reculer devant aucune opération. Il y en a encore beaucoup aujourd'hui de ces hommes, haut placés, tant en Amérique qu'en Europe, dans leur profession, qui ne se font aucun scrupule, dans l'espoir d'obtenir quelque réputation, de faire une opération quelconque sans s'occuper des résultats même de l'opération. Si encore les pauvres malheureux ainsi mutilés avaient toujours la chance de tomber entre des mains habiles, les résultats seraient moins à craindre.

Aujourd'hui le vrai chirurgien est en outre médecin, de sorte qu'il peut ainsi éviter une opération inutile.

De plus le vrai chirurgien avec les connaissances actuelles sait qu'il peut, par des moyens nouveaux, soit administrés à l'intérieur comme remèdes ou à l'aide d'appareils employés à l'extérieur, sauver une foule de malades de la mort en leur évitant toutes les angoisses physiques et morales d'une opération soit avant, pendant, ou après.

Le désir d'opérer est un écueil dans lequel sont tombés de grands chirurgiens. Je citerai, entre autres, Dupuytren qui pour satisfaire aux caprices d'une dame de haut parage, lui enleva une petite tumeur du sein droit. Cette dame mourut quelques jours après des suites de l'opération simplement pour avoir voulu qu'on remédiât à quelque chose qui, quand elle se décolletait, choquait, croyait-elle, la vue des indiscrets. Une dame anglaise consulta un jour un grand chirurgien de Paris pour une petite tumeur, très-insignifiante de sa nature, qu'elle portait sur une des joues. Le chirurgien la lui enleva et la malade mourut peu de jours après. Je voulais rapporter ces deux cas dont les opérateurs sont bien connus de la profession, car tous mes confrères le savent aussi bien que moi, combien y en a-t-il, en Canada comme ailleurs, qui, pour gain et pour réputation, ont fait des opérations inutiles, dangereuses et mortelles, et qui surtout n'avaient nullement les qualifications requises du chirurgien.

Le premier cas de triomphe de la chirurgie moderne dont je fus témoin fut celui d'une nécrose syphilitique, occupant l'articulation tibio-tarsienne d'un jeune homme, dans une des salles de l'hôpital de la Pitié, à Paris, sous les soins de M. Bérard, dont j'étais alors un des élèves-externes. M. Bérard, après l'avoir gardé dans ses salles pendant quelques jours, lui proposa l'amputation de la jambe. Un jeune étudiant qui avait vu le cas, en parla aussitôt à M. Lisfranc qui faisait un autre service de chirurgie dans le même hôpital. M. Lisfranc fut satisfait de l'occasion qui s'offrait de pouvoir blesser un professeur de la faculté. Le malade quitta le service de M. Bérard pour celui de M. Lisfranc qui assurait de pouvoir le guérir sans en venir à l'amputation. En effet un traitement anti-syphilitique approprié conserva la jambe du malade et le guérit de sa nécrose.

Je me plais du reste à dire que c'est le seul cas que je puisse attribuer à M. Bérard, pendant près de deux ans que je fus dans son service. Car à sa louange il n'avait point la manie opératoire d'un grand nombre d'autres chirurgiens et s'était acquis une grande réputation comme chirurgien distingué, non pas tant pour les opérations qu'il faisait que pour les opérations qu'il évitait.

Ce cas, je le répète, je l'ai cité parce qu'il m'avait frappé.

Une semblable maladie chez une jeune Irlandaise fut soumise à mes soins. Je lui fis suivre un traitement anti-syphilitique et elle fut radicalement guérie après une année de traitement. Cette jeune fille avait été pendant six mois dans l'Hôpital Général de cette ville où on lui avait proposé l'amputation. Quelques personnes bienveillantes la firent entrer dans une maison de charité et c'est là que je la traitai. Je fis voir le cas à plusieurs de mes confrères, en ville, dont quelques-uns mêmes l'avaient vu à l'Hôpital et avaient été témoins de la proposition. Je veux, en terminant, vous citer la nouvelle opération proposée par M. Wakely, de Londres, et qui consiste, dans les cas de nécrose ou de carie de l'extrémité articulaire du tibia, à enlever la partie nécrosée du tibia et une portion de l'astragale qui lui servait de coussin et à former ainsi une nouvelle surface articulaire, mais ankylosée.

Je ne puis me permettre de juger cette nouvelle opération, ne l'ayant pas vu faire mais elle me semble très-juste et est encore une preuve du triomphe de la chirurgie moderne qui est de conserver le plus possible, car au lieu d'amputer la jambe comme autrefois, ou bien d'enlever le pied par les procédés de M. Baudens, chirurgien en chef de l'Hôpital militaire du Gros Caillon, à Paris, ou bien d'enlever également le pied par le procédé de M. Syme, l'habile chirurgien d'Edimbourg, lui Mr. Wakely conserve au moins le pied, c'est-à-dire la base de sustentation de toute la partie correspondante du corps.

En voilà assez, je crois, pour démontrer qu'une opération étant donnée, il ne suffit pas avec Boyer de s'occuper seulement de ces trois mots "*tuto, cito, jucunde*," mais encore il faut que le chirurgien soit *constitutionnellement conservateur*.

J'aurais pu multiplier les exemples des conquêtes de la chirurgie moderne, mais mon but était seulement d'ajouter le cas, qui fait le sujet de cet article aux autres déjà si nombreux. En prenant congé pour aujourd'hui des lecteurs du journal, je leur dirai que je me propose, de temps à autres, de donner quelque article qui touche plus particulièrement à la pratique en les accompagnant d'observations.

ART. VIII.—*Observations upon the Inutility of the Abdominal Bandage after Parturition, being part of a lecture delivered this session.*
By F. C. T. ARNOLDI, M. D., Lecturer upon Midwifery, St. Lawrence School of Medicine, Montreal, &c., &c.

HAVING now told you all the essential points to be rigidly attended to during the process of labour, you must be made as familiarly acquainted with the nursing part of the puerperal state. The child having been disconnected from the mother and the placenta withdrawn, your next care should be, that the uterus has assumed a state of permanent contraction, and for this purpose, you should diligently watch, for at least, half an hour, because, very alarming symptoms may supervene, such as uterine hæmorrhage, syncope, or convulsions. The most common is uterine hæmorrhage. This may take place under various circumstances, but the most ordinary, is an atonic state of the uterus, the cause of this condition may either be immediate or remote, that is to say, immediately after delivery, the uterus may cease to contract, or having, to all appearances, permanently contracted, it may relax, get into the atonic condition, and so give rise to profuse hæmorrhagic discharge. Now this discharge, in both instances, is owing to the *baillant* condition of the uterine venous sinuses; fortunately, however, this is not an every day occurrence, yet apparently, with a view of anticipating such a serious misfortune, our ancestors and modern authors lay down strict injunctions for the application of an abdominal roller or bandage. There was a time, when I would have thought it almost sacrilegious to have acted in contravention to this precept—but a case happened to come under my charge, in which I was very much interested, and which gave rise to close anatomical investigation on my part. I shall narrate it to you in a familiar manner, and show you the conclusions I came to:

Mrs. A. was confined on the 14th August, 1830. Being a prima

para, it was, as usual, a painful and somewhat tedious case, but on the whole nothing uncommon, the secretion of milk set in within fifty-four hours, and nothing appeared to indicate the prohibition to her sitting up in an arm chair on the fourth day, for the purpose of having her bed made; the bandage had been applied round the abdomen according to orthodox rules. On the evening of the fourth day, she complained bitterly of pains in her loins, and continual bearing down pains—supposing that the bandage had not been applied sufficiently tight, it was drawn a little tighter, but instead of affording any relief, the pains were increased. It then struck me, that as the bowels were in good order, the bandage was the whole and sole cause of the evil, and, to satisfy myself, I examined a skeleton very attentively, and I came to the conclusion that my notion was correct; in proof, gentlemen, only look at this skeleton, and observe (that which I was so careful to impress on your minds in the former part of my course) the very obtuse angle, the brim of the pelvis bears to the axis of the spinal column. You see, that the promontory of the sacrum is several inches above the horizontal line of the pubis—that the promontory projects forwards—the sacrum recedes, and thereby forms a recipient cavity. Again, gentlemen, remark the lateral configuration of the skeleton, and you perceive that the great projecting *alæ ilii*, the crests of which are on a line almost parallel with the promontory of the sacrum, form the point from which the tapering figure starts upwards towards what is called the waist; this you see is perfectly demonstrable even on the skeleton, how much more so is it as you must have observed, on the soft subject? Well, having satisfied myself on these two points, I first of all came to the conclusion that no well-formed woman could keep an abdominal bandage in its proper place, unless, indeed, it were very tightly put on, and then I inferred that if very tightly put on, it must act very detrimentally on the yet heavy uterus. The bandage you see, to keep its place, so as to act upon the uterus, must be applied over the hip, otherwise, it must act upon the abdominal viscera, and make them press down upon the uterus, in which case, the bandage necessarily slips up to the small diameter of the waist, and can no longer carry out the original object intended, and proves a sore annoyance to your patient, who, believing there is some charm in it, keeps herself in a constant fidget by pulling it down, and pulling it, as she believes, into the right place; now, this of itself, gives rise to much unnecessary muscular exertion. If the bandage be kept tight over the hips, it must necessarily act upon the uterus, and that, in two ways, presuming it in the first place to be necessary, it must be for the purpose of exciting the uterus to contraction, or it must be for the purpose of arresting uterine hemorrhage, but I maintain, that it can produce neither

the one nor the other effect; in the first place: it mechanically presses the yet heavy uterus into the bottom of the sacrum (which affords it every facility to descend) and thereby, lays the first seeds for prolapsus uteri, and in the second place, if uterine hemorrhage do supervene, it is one of the most fallacious resorts you can trust to; but further, I will tell you when I come upon that subject. To come back to my case, Mrs. A., as I told you before, suffered much from bearing down pains on the fourth day, and I may now add, she continued to do so for many months after; time rolled on and still the pains continued, until fortunately she again got in the family way, but even then, and for the four first months, she was constantly threatened with a miscarriage. She, however, had the good luck to go on to her full time. I delivered her the second time, and determined not to use the bandage again, in lieu of which, as a matter of precaution, I exacted a little more bed rest. My orders were strictly attended to, and her recovery was all that could be wished for. From that day to this, she has had no recurrence of bearing down pains after her confinements, though similarly treated, notwithstanding her having had ten more children, making twelve in all. Since my experience in this case, which was in 1832, (her second confinement) I have never applied the abdominal bandage in my private or hospital practice, I have never met with any sinister results from its omission, and I know of other medical men who have often followed my example equally satisfactorily. Uterine hemorrhage is the great bugbear, and certainly it is a most serious concomitant, but when it does take place, I can assure you, gentlemen, your patient would be badly off, if you had nothing else to trust to, but the abdominal bandage. Obesity, or the becoming (to use vulgar parlance) "pot-bellied," is the next argument against the omission of the bandage, but I can assure you, that in the whole of my practice, I cannot trace one single instance to such a cause. Hear what a lady writes to me from Quebec, "Dear Doctor I was confined on———, and I determined on following your instructions to the letter. My physician and nurse thought I was mad, nevertheless, I maintained my point, and certainly, I have every reason to be grateful to you, for besides having made a much more favorable recovery than usual, I have been relieved of that horrible annoyance,—*the belly band; and the bearing down pains have not returned.*"

Again, gentlemen, let us look at the puerperal state in a strictly pathological and physiological point of view. Is not parturition strictly and simply a natural and healthy process? Certainly it is, except under casual circumstances. Can the distension of the abdomen from uterogestation be compared with the abdominal distension from ascites? No! In the one instance, you have a healthy tonic, in the other, you have

one of the worst forms of unhealthy atonic action ; in the one, you have a fixed duration, at the end of which tonic muscular contraction sets in, and the abdominal parietes resume their normal condition ; in the other, the letting out of the fluid by the trocar is followed by a mere collapse of the abdominal parietes, so that the capacity of the abdomen would still remain the same, unless a roller bandage were applied. Were I now speaking of uterine hemorrhage, I would point out to you, how thoroughly insufficient the abdominal bandage alone would be ; at any rate, I would show you how much you would be mistaken, if, under such circumstances, you trusted to it, as your main stay. Talking of uterine hemorrhage, it is a very singular fact, that during a practice of 25 years, I have never met with more than one case, except such as I have seen in consultation, and of that case I was forewarned, as my patient had suffered from it on three former occasions. Notwithstanding, gentlemen, what I have told you as the result of my own practice, I must warn you against being too dogmatic in the course of yours. Old women must have their way, and their ways are almost always based upon prejudice, you, therefore, should be prepared and willing to consent to their notions. If, you perceive a very especial desire for the application of the abdominal bandage, my advice to you is, by all means, to consent to it ; it is only necessary for you to see that it is not put on so tight as to endanger your patient to future uterine inconveniency.

Observations sur le Plessimètre et la Percussion, par le Dr. TAVERNIER.

MM. LES EDITEURS.—Dans votre revue critique de l'œuvre du Dr. Walshe, *sur les affections du poumon et du cœur*, traitant de la percussion et des mérites relatifs des différens moyens de percuter, vous semblez approuver sa manière de voir, et traiter bien légèrement l'utilité du plessimètre et du stéthoscope. Comme dans le chapitre précédent vous avez vous-même prouvé que le savant Professeur n'est pas toujours infailible, qu'il a pu, une fois du moins, se méprendre, il se peut qu'on puisse différer d'opinion avec lui sur d'autres points encore et se croire dans le vrai.

Le Dr. dit " Notwithstanding that some modern clinical teachers applaud their *hammers* and other instruments, we have ever inculcated upon students the necessity of using their fingers for this purpose. In practice we must go about without our hammers, lung stethoscopes, &c."

Pour être de cet avis il faudrait donc ne plus se servir d'instruments tels que les différens spéculum, les sondes, etc., qu'il doit pourtant substituer aux doigts, lorsqu'il s'agit, par exemple, de découvrir l'exis-

tence d'une pierre dans la vessie, la sonde est cependant autrement embarrassante qu'un plessimètre, et c'est pourtant encore un des *hammers* qu'il nous faut de toute nécessité transporter partout avec nous dans la pratique. Cette objection me paraît bien futile.

Ayant suivi pendant quelques mois la clinique de Mr. Piorry, à l'Hôpital de la Pitié, et ayant pu, en conséquence, apprécier les avantages aujourd'hui incontestés, à Paris, par le plus grand nombre, par ceux qui d'abord paraissaient les plus incrédules, je crois utile de réclamer dans l'intérêt de la science, contre l'opinion qui semble vouloir établir en axiôme, "qu'en médecine les organes naturels doivent toujours de préférence remplacer l'usage des instruments," ce qui n'est pas plus fondé quand il s'agit de science médicale, que lorsqu'il s'agit de toute autre science.—Aurions nous, sans le microscope aussi bien que le télescope, et avec les yeux seuls, pu découvrir ces myriades d'êtres vivants dans une goutte de rosée, et apercevoir dans l'immensité de l'espace ces mondes au-delà desquels se meuvent d'autres mondes ? De même que la vue ne peut pénétrer aussi loin sans leur secours, de même les doigts ne sauraient suffire pour arriver à autant de précision dans l'appréciation du volume d'un organe ou l'atteindre à une aussi grande profondeur et y découvrir des mondes de faits qui devront refléter, sur le diagnostic et le traitement à suivre, des flots de lumière.

La rate mesure de 7 à 8 centimètres verticalement, j'aimerais à voir le plus habile percuteur reconnaître une augmentation de volume de cet organe de quelques lignes seulement en ne se servant que du doigt, c'est plus que ne pourrait faire Mr. Piorry qui s'occupe de percussion depuis près de 25 ans, et qui, lui aussi, sait se servir du doigt quand besoin est ; quand il faut, par exemple, percuter la poitrine chez un sujet amaigri, dont les côtes font fortes saillies, et où il serait difficile d'appliquer aplomb les autres percuteurs ; là, je l'ai vu en faire usage, et je suis fort tenté de le croire, avec au moins autant d'habileté que qui que ce soit, ce qui ne l'empêche pas cependant de croire qu'avec le plessimètre l'on obtiennent des sons plus tranchés, plus distincts. Du côté droit déterminez donc, si vous le pouvez, l'exacte limite qu'atteint le bord supérieur du foie, là où une lame du poumon le recouvre ; vous aurez du son pulmonal. Percutez les reins avec le doigt, si vous le pouvez encore, et donnez m'en les dimensions, ou bien circonscrivez la vésicule biliaire engorgée ; c'est pourtant ce que j'ai vu faire avec le plessimètre.

L'on accusait la rate d'être l'organe affecté dans les fièvres miasmatiques, en effet, on la rencontrait engorgée et d'un volume énorme chez la plupart de ceux qui y succombaient ; on avait donc raison de l'accuser du trouble qui se manifeste dans toute l'économie. L'on savait aussi que la quinine agissait presque comme spécifique dans ces maladies, quand

son action trop longtemps prolongée ou son administration subite à trop hautes doses, ne produisaient pas une série de nouveaux désordres, tel que des vertiges, des bourdonnements d'oreilles, la surdité, des hémorrhagies et quelquefois même la mort. Eh bien ! le plessimètre qu'on semble tant dédaigner est venu nous éclairer sur ce sujet, comme sur beaucoup d'autres, et rendre raison de ce qui vous paraissait inexplicable. J'ai vu mesurer des rates qui n'avaient pas moins de quinze centimètres de hauteur, en démarquer les limites, empêcher ensuite le moindre mouvement de la part du malade, administrer 12 à 20 grains de quinine dissoute dans l'alcool ou l'acide sulfurique étendue d'eau, puis après un laps de vingt secondes seulement, mesurer de nouveau et s'assurer que l'organe avait subi une contraction de 2 et même de 3 centimètres dans toute sa circonférence. L'action de la quinine sur la rate a donc pu être constatée au moyen du plessimètre, on a donc pu, à son aide, se convaincre que son action sur cet organe, est analogue à celle du seigle ergoté sur la matrice ; l'on a pu par là aussi s'expliquer les accidents qui suivent quelquefois son emploi, et s'éclairer dans la marche à suivre pour les éviter. Supposez un cas où la rate est très volumineuse et engorgée, sous l'influence d'une forte dose du remède, ses vaisseaux sont fortement contractés, et peuvent dégorger subitement dans le torrent de la circulation, une assez grande quantité de sang vicié pour en altérer la masse, et par l'expansion soudaine des vaisseaux, produire tous les désordres ci-dessus—vertiges, hémorrhagies, etc., etc.

Messieurs Barth et Rogers, disent, dans leur *Traité pratique d'Auscultation et de Percussion*, que les données fournies par le plessimètre permettent de pousser encore plus loin le diagnostic, de distinguer la dilatation avec amincissement de la dilatation avec hypertrophie des parois, comme de reconnaître les altérations isolées de telle ou telle cavité, etc.

Ceci devrait suffire pour ne pas rejeter inconsidérément un instrument au moyen duquel on peut, dans nombre de circonstances, suivre, pour ainsi dire, pas à pas la maladie, et, par le plus ou moins d'effet sur l'organe malade, régler le traitement, déterminer la durée et en pronostiquer avec une presque entière certitude, l'issue heureuse ou funeste.

Il est dit dans le *Dictionnaire des Dictionnaires, de Fabre*—" Mr. Piorry, guidé par la propriété qu'ont certains solides mis en vibration de propager ces vibrations aux corps avec lesquels ils sont en rapport, imagina de percuter à l'aide d'une plaque d'ivoire. Le caoutchouc par lequel Mr. Louis voulut la remplacer, n'a été adoptée que par peu de praticiens."

Quand au *long stéthoscope* dont il est aussi question, quoique j'admette que dans la plupart des cas l'on puisse s'en dispenser, pourrait-on

le faire convenablement, lorsqu'il s'agit d'examiner la poitrine chez une jeune personne du sexe, ou lorsqu'il est nécessaire de faire l'exploration, la peau étant couverte de lèpre ou d'autres maladies ; ce serait fort plaisant d'avoir alors recours à l'auscultation immédiate.

Je conclus donc que, dans ce cas encore, le Dr. Walshe est trop exclusif ; et que, quant à ce qui regarde le plessimètre, on ne saurait avec les doigts les plus exercés arriver au même degré de précision dans l'évaluation des dimensions d'un organe quelconque ? Ce qui importe quelquefois beaucoup, non plus que l'atteindre et en tirer des sons à la même profondeur, surtout où les tissus sont mous et relâchés comme à l'abdomen.

Voici, de plus, ce qu'en pense un écrivain anglais Thorburn : " Percussion was employed until lately only as a diagnostic auxiliary, in determining chest affections. A zealous Physician, Mr. Piorry, has prosecuted and extended the application of this mode of physical exploration, and has detected the relation subsisting between many nice sounds, and the physical conditions of the tissues, upon which practical distinctions of great value may be grounded. The majority of the refined diagnostic sounds, of which he treats in his *Procédé à suivre dans l'exploration des organes par la percussion médiate*," are attainable only through the medium of his acoustic instrument the *Pleximeter* or sound measurer, in thoroughly practiced hands."

L'on objectera peut-être, qu'il faut une longue pratique avec cet instrument, pour pouvoir s'en servir avec utilité. Il en est du plessimètre comme du stéthoscope, il faut une oreille musicale exercée et un tact délicat, qui ne s'acquèrent pas plus dans un traité de percussion, qu'on ne se familiarise avec les sons en étudiant les formes des différentes notes d'un cahier de musique. Ça ne s'apprend qu'au chevet du malade. Néanmoins, j'ai souvent vu des élèves qui s'étaient exercés un couple de mois au maniement du plessimètre, mesurer sur le cadavre le cœur, le foie, la rate, etc., en circonscrire les limites avec un crayon de nitrate d'argent, introduire de longues aiguilles tout autour de l'organe, puis faire l'ouverture du sujet et démontrer la justesse de leur diagnostic.

L. F. TAVERNIER.

[The writer of the Review upon WALSH on *Diseases of the Lungs &c.*, did not intend inculcating a neglect of the Study of the Pleximeter and Stethoscope, for he was the first in this country to teach their use practically in his Clinical Lectures ; but he did advise his readers to become familiar with the detection of sounds by the *unaided ear*, and the eliciting of sound by the *unaided fingers*, seeing that the practitioner may be frequently called to cases of acute diseases of the lungs and heart, and being without his pleximeter and stethoscope may not be able to make a correct diagnosis, and then lose much time before he can commence the proper treatment. The value of the Pleximeter in the hands of Piorry has not been over-estimated by our talented contributor ; for the writer has himself been a witness of the utmost miraculous tact with which its discoverer can detect the increase or diminution of the different organs

of the body, and the extent of effusions, &c., and he has, both by precept and example, shown to his pupils every year, with what accuracy these different points can be determined during life and verified after death. The Students, who have followed his Clinical Instruction, will recollect, that, in all cases, he has been in the habit of *mapping* out the situation, extent, and varying conditions of the diseased or misplaced organs, and they can corroborate the statement of Dr. Tavernier as to the great utility of this method of Clinical Examination.—R. L. M'D.]

ART. X.—*Infinitesimal Doses ; a notice of Homœopathy and its doctrines.* By D. MACCALLUM, M. D., M. R. C. S., England.

THIS paper concludes a review of some parts of Homœopathy, the former portion of which was published in the three last numbers of the "*British American Journal of Medical and Physical Sciences.*"

We object to Infinitesimal doses—4thly. *Because the mind cannot form even an approximative idea of the quantity of medicinal matter said to be contained in each globule.*

This is a reason which requires no argument whatever in support of its correctness. The mere exhibition of the table of attenuations, found in nearly every work on Homœopathy, will satisfy every mind as to its truth. For what human intellect can have any idea of a fractional part of matter which requires a denominator containing sixty-one figures to express its quantity? Who can conceive of the one--1,000th part of a grain of any substance? Yet this, which is called the thirtieth dilution, is recommended by Hahnemann and one class of Homœopaths as being by far the best dilution to administer in disease. Indeed Dunsford regards the retrogressive movement of Trinks, Greissilich and others towards the first dynamizations, as the reason why "the art has been deprived of one of its proudest boasts, that of curing *cito, tuto et jucunde.*" The following table exhibits the number of attenuations from *one drop* of the "mother tincture," with the fractional part of that drop contained in each attenuation, and the number of figures necessary to express each fractional part:—

First	attenuation.....	Hundredth part of a drop.....	8	figures
Second	"	Ten Thousandth	"	5 "
Third	"	Millionth	"	7 "
Fourth	"	Hundred Millionth	"	9 "
Fifth	"	One Thousand Mill.	"	10 "
Sixth	"	Billionth	"	13 "
Seventh	"	Hundred Billionth	"	15 "
Eighth	"	Ten Thousand Bill.	"	17 "
Ninth	"	Trillionth	"	19 "
&c.		&c.		
Twelfth	"	Quadrillionth	"	25 "
Fifteenth	"	Quintillionth	"	31 "

Eighteenth attenuation.....	Sextilionth part of a drop.....	87	figur.
Twenty-fourth "	Octillionth	49	"
Thirtieth "	Decillionth	61	"

One would imagine, after perusing the above, that Homœopathists would scarcely dare to tax the credulity of their followers with anything more preposterous. But we learn from the "*Concise view of Homœopathy*," published by the Irish Homœopathic Society, that *they* consider the thirtieth dilution as a very small advance, indeed, in the reducing process. "No distinct limit," say they, "can yet be fixed as to the degree of preparation, where the medicines, thus prepared, cease to shew medicinal effects when applied in disease. Some medicines, e. g. Sulphur, have been pushed to the *fifteen hundredth and two thousandth* degree of preparation, *and have exhibited undoubted and distinct medicinal effects.*" And, "This dynamical conveyance," says Karl Luther, "from one phial to another, has, however, been continued up to the 15th, 60th, 100th, even 1500th rarefaction, *and the medicaments thus prepared have been found powerful enough to cure the most obstinate disease.*"

To express the fractional part of matter contained in the fifteen-hundredth and two thousandth dilutions, it would require for the former a denominator containing 3015 figures; and for the latter, one containing 4020 figures!! And yet, men, having the reputation of being sane, state, with amusing gravity, that these dilutions have exhibited "undoubted and distinct medicinal effects;" and others, confessedly intellectual, are found, who give implicit credence to such wild and outrageous assertions. Surely, those latter must give their assent without ever bestowing one serious thought on the matter. If they would but write down some three or four thousand figures, and then endeavour to mentally grasp the mass before them, and form it into a definite idea; failing which, if they were to reflect, that the incomprehensible mass of figures represents *the fractional part of a grain or drop of some medicinal substance*, which fractional part is said to produce distinct symptoms, and to be of undoubted benefit when administered to a person labouring under disease, they could not but be disgusted with the utter charlatany of the system which embodied such monstrous absurdities; nor could they ever after regard an apparently sincere and enthusiastic supporter of the doctrine of Infinitesimals, but as one, either shamelessly lost to all sense of honour and truth, or labouring under a defect of mental constitution, bearing a striking resemblance to the psychological condition of the monomaniac.

The two-thousandth preparation is not, however, the extremest point of exiguity recommended by Homœopathists; for, not willing to be exceeded by any who might follow him, Hahnemann directs, "if the

patient is *very sensitive*, and it is necessary to employ the smallest dose possible, and attain at the same time the most speedy results, *it will be sufficient to let him smell once to a phial that contains a globule the size of a mustard seed, imbibing the medicinal liquid attenuated to a very high degree.* After the patient has smelled to it, the phial is to be re-corked, *which will thus serve for years, without its medicinal virtues being perceptibly impaired."*

Figures fail in this instance to give an expression to the quantity of remedial matter, which, emanating from the globule, impresses so powerfully the system of "*the very sensitive*," through the olfactories. We admit, that it is involved in mystery sufficiently deep, impenetrable and wonder-exciting, to cure at least nine-tenths of the ailments of "*the very sensitive*."

Homœopathists talk and write so very flippantly about the fifth, tenth, twentieth, and thirtieth dilutions, that many unthinking persons are apt to fall into the error of regarding them as containing slight, and easily conceivable, fractional parts of a medicinal substance. Some idea may be formed of the extent of the attenuation from the following: Lake Superior, according to the best surveys, is 400 miles long, 80 miles wide, and possesses an average depth of 900 feet. It contains, consequently, 1,387,407,605,760,000,000 cubic inches of water. There are, in round numbers, 300 drops of water in one cubic inch, which, when multiplied into the above, makes the number of drops of water in Lake Superior to be 416,222,281,728,000,000,000. Now, supposing *one drop* of a "*mother tincture*," or *one grain* of any medicinal substance, to be placed into, and equally diffused throughout every particle of that vast body of water; *four drops* taken therefrom, would be a Homœopathic dose of the "*tenth dilution* only; every four drops, in other words, would contain the hundred-trillionth part of the grain or drop placed in the lake for solution!!

If the *four drops* taken from Lake Superior were then placed in Lake Michigan, which is 320 miles long, 70 wide, with an average depth of 1000 feet, and which contains 323,728,441,344,000,000,000 drops of water, and in the same manner distributed equally throughout the mass, *three drops* taken from this Lake, would be the "*twentieth dilution*?" of Hahnemann!

If *three drops* were next transferred from Lake Michigan to Lake Huron, which is 240 miles in length, 80 miles in breadth, and 1000 feet in depth, and which contains 277,481,521,152,000,000,000 drops of water: TWO DROPS from this lake would be the "*thirtieth dilution*," and contain the decillionth part of the drop or grain placed in Lake Superior!!!

That some of the leading Homœopathic writers are really ignorant of what they are writing about, when they treat of attenuations and dilutions, is evident from what Curie, one of the great authorities in Hahnemannism, says on page 67 of his "*Practice of Homœopathy*." "But it *seldom happens that an entire drop of tincture*, even in the highest dilutions, as the 24th or 30th, is dispensed at one time." Seldom, indeed! Why the fabled tasks of Hercules shrink into nothingness, when compared with the feat of a Homœopathist taking "an entire drop of tincture in the 24th or 30th dilution." In truth, it is a thing altogether impossible, as there is not enough of water on the surface of the globe to administer it in. If all the water contained in the great chain of lakes had *one drop of a tincture* equally diffused through it, and a Homœopathic physician, residing in Montreal, wished to give "an entire drop of the tincture," *in the 12th dilution*, to any of his patients, he would merely have to request him to step down to the harbour, apply his mouth to the water, and drink the immense basins dry. When the patient had accomplished this feat—when he had swallowed the last cubic inch of water from the furthestmost part of Lake Superior, then, and only then, could the practitioner make the boast of having administered "*an entire drop of the tincture*," *in the 12th dilution*.

The cubic contents of the earth have been estimated at 170,195,852,160 miles, which number, when reduced to cubic inches, produces the sum of 43,290,686,955,191,229,480,960,000. Now, supposing that one cubic inch of sugar of milk is employed in the preparation of 5000 globules, a mass the size of this globe would be sufficient to form 216,453,434,775,956,147,404,800,000,000 globules. The 15th *attenuation* of Hahnemann contains the quintillionth part of a grain; consequently, he who would desire to partake of *an entire grain* of any drug in the *fifteenth attenuation*, would be under the necessity of swallowing a mass of sugar of milk, *nearly five times the size of the globe he exists on!!* This is proved by the above calculation: for, if one grain be divided equally through a mass of sugar of milk of the same dimensions as the earth, each portion of that mass, equal in size to a globule, will contain the two-hundred-thousand-quadrillionth part of the grain, whereas, one grain divided to the 15th attenuation would form a Quintillion of globules, which is just five times two-hundred-thousand-quadrillions.

Wonderful as the capacity of the homœopathic patients for swallowing incredible things confessedly is, this, we imagine, would prove too much, even for their marvellous gullibility.

5thly—*Because the results of treatment by Infinitesimals prove their inefficiency.*

"*Tuto cito et jucunde.*" At length, then, that long desired, but

scarcely expected time—that period in the history of the practice of medicine, to which the aspirations of all the good and great of the profession in past times tended, *viz.*, perfection in the treatment of disease—has arrived. For has not the “immortal Hahnemann” declared, and has not the glad tidings been duly reiterated in joyous and triumphant strains by his followers, that the recognition, by any medical practitioner of “*similia similibus curantur*,” and the doctrine of Infinitesimals, will enable him to restore to health *tuto cito et jucundè*, all those who labour under any one, or more, of the manifold ills that flesh is heir to? What a delightful field is here presented to the contemplation of every truly philanthropic mind! What a glorious vista, extending into the future, opens up to his mental vision! No more racking pains—no more sleepless nights—no more anxious watchings for the first faint trace of approaching day, or feeling of weariness and disgust with the glorious light of heaven. A few globules of the thirtieth or third attenuation, it matters not which, restores at once the diseased body to its pristine vigour and health. “When a proper application of the homœopathic remedy has been made, the disease which is to be cured, *however malignant and painful it may be, subsides in a few hours if recent, and in a few days if it is already of long standing*. Every trace of indisposition vanishes, scarcely anything is seen of the disease produced by the remedy; *and health is restored by a speedy and almost insensible transition*,” (*Organon aph.* cxliii.) So says Hahnemann and his followers. But alas! for poor suffering humanity; these fine sounding assertions are falsified even in their own writings. For, not only the treatment of their reported cases extends far beyond the allotted time, but also, the vast majority of the cases, consist of diseases which usually terminate, when left to the unaided powers of nature, in the times mentioned as having elapsed before a cure could be effected with the infinitesimals.

In preference to taking up and examining the cases published by Curie and Dunsford, we shall give the history and results of treatment of nine cases of disease, treated Homœopathically in the Montreal General Hospital by Dr. Rosenstein, a German, who first introduced homœopathy into Montreal. The notes have been furnished to us by a medical friend, who was appointed to observe the progress of the cases.

In the summer of 1844, at which time the experiments were tried, homœopathy was quite a new thing in this city; Dr. Rosenstein was then the sole representative of homœopathy. For his trial of the efficacy of infinitesimals, he was allowed to select his own patients—their diet was completely under his control; in short, every facility was afforded him by the visiting physician, Dr. Hall, and the resident medical officer of the establishment, to test fairly and honestly the value

of infinitesimals in the treatment of disease, with what success, the reader will be enabled to judge from a perusal of the following:—

CASE 1.

Michael Dolan, aged 19, was admitted into the Montreal General Hospital, May 29th, 1844, labouring under intermittent fever.

“ Had an attack to day—paroxysm came on at eleven o’clock, A. M. Dr. Rosenstein ordered 6 globules of Ipecacuanha to be given in divided doses, 2 globules every second hour. No tea.”

May 31st.—Paroxysm to-day at 11 o’clock. Continue globules of Ipecac.

June 1st.—Patient “*thinks* nothing is the matter with him.” Omit globules.

June 2nd.—Paroxysm as usual at 11 o’clock.

3rd.—Feels well; appetite good. 16 globules of Bryonia in divided doses—4 globules every fourth hour.

June 4th.—Paroxysm at 11 o’clock; experienced a pain in the abdomen during the continuance of the cold stage. Omit globules. Beef-steak and potatoes for dinner.

June 6th.—No paroxysm. At 4 o’clock, P. M., felt very weak, and experienced severe pains in the bones of the extremities. Six globules of sabadilla in divided doses—2 every second hour.

June 8th.—No paroxysm; suffers from pains in the back and limbs, is so weak, cannot walk across the ward floor. Port wine, four ounces. Soup.

June 10th.—Pains in his back, limbs and head, which increase at 4, P. M. Globules of Bryonia dissolved in water—a tablespoonful every hour.

June 12th.—Pains in various parts of the body; pressure over the left hypochondriac region produces a sensation of pain. Discharged by Dr. Rosenstein, who stated, “that the weakness and pain he experienced was entirely owing to want of exercise.” The man, however, feeling altogether unable to use even the slightest exertion, remained in the Hospital. On the 16th June, he had a severe paroxysm, much more severe than any of his previous attacks. On the 17th, he had another paroxysm. Dr. Hall now placed the patient under treatment, and on the 29th July he was discharged from the Hospital cured.

When it is considered that intermittent fever is a disease which homœopaths regard as being peculiarly susceptible to the operation of their remedies, and which they boast of, as affording in its treatment triumphant proof of the truth of their system, the above case can only be looked upon as a complete failure. The patient Dolan, was the se-

lected one of Dr. Rosenstein, from three persons with intermittent fever, who presented themselves for admission into the Hospital on the same day. He was young, and there existed no complication of the disease. The remaining two, who were older, and in both of whom complications existed, were treated by Dr. Hall, and discharged cured, respectively, on the fourth and seventh of June. Notwithstanding the advantages thus granted, not only did he entirely fail in curing the disease, but the disease actually became worse; the original *tertiana* having degenerated into the *quotidian* type.

CASE 2.

James Powell, aged 17, was admitted June 21st, 1844, suffering from an attack of pneumonia. At noon on the 22nd, at which time he was placed under Dr. Rosenstein's care, his thorax was carefully examined, and the inflammation found to occupy the lower portion of the upper lobe of the right lung. Cough, dyspnoea; symptomatic fever; congestion over the molar prominences, &c., &c., were present. A few globules of phosphorus, (6th trituration) to be dissolved in eight ounces of water, and one tablespoonful to be given every hour. Gruel for diet.

At four o'clock, P. M., he was ordered 16 globules of aconite in divided doses—four every third hour.

June 23rd.—At 10 o'clock, A. M., the general symptoms remained unabated in severity, and auscultation detected an increase of the disease.

2 globules of phosphorus to be laid on the tongue. A few globules of aconite to be dissolved in eight ounces of water, and a tablespoonful to be taken every hour.

At six o'clock, P. M., all the general symptoms had increased in intensity, and the physical signs indicated a fearfully rapid extension of the inflammation. Dr. Hall now thought it advisable to take the patient under his own charge. He immediately placed him under proper treatment, and on the 16th July he was discharged from the Hospital perfectly cured. When Dr. Rosenstein took charge of this case, he was told, that if symptoms of improvement did not show themselves in the course of twenty-four hours, the patient would be removed from his charge. To this he replied, that "24 hours were more than sufficient, as he would cure the young man perfectly in 12 hours at furthest."

At the expiration of 30 hours, however, from the time he commenced the treatment, the disease had assumed so serious an aspect, that Dr. Hall properly considered non-interference on his part would amount to culpability. This case must also be considered a decided failure.

CASE 3.

Ellen Holmwood, aged 20, was admitted on the 1st June, 1844.

" Her skin is of a deep icteric hue ; she complains of pain in the right hypochondriac region, which is increased by pressure ; has a pain in the head ; vomits frequently, the vomited matter being of a dark colour ; bowels free ; stools dark and fetid ; urine quite yellow when placed in a white vessel ; pulse 72, regular.

Dr. Rosenstein attended her from June 1st to June 14th, giving her, at various times, globules of cinchona, arsenic, sulphur, belladonna, pulsatilla, mercury, sulphate of lime, bryonia and rhus toxicodendron. As the Icterus, which remained unaffected by the treatment, had increased on the 13th. As she complained on the 14th of a severe pain in the head accompanied by dizziness ; of pain in the right hypochondriac region, and of pain over the eyes. As the vomiting still continued ; and the stools had become clay-coloured and extremely fetid, as, in short, the disease had steadily advanced in spite of the infinitesimals, Dr. Hall placed her under treatment on the 15th, from which time she gradually improved, and was discharged cured on 10th July.

CASE 4.

Was a case of Typhus Fever, occurring in the person of a young man, aged 23, named Timothy Martin. He was admitted on the 10th June. The fever, which declared itself on the 4th June, ran through its course in the ordinary time, having subsided on the 1st July, and exhibited its usual phases, notwithstanding the variety of attenuations which were administered to check it in its course. Some very judicious but, at the same time, non-homœopathic, measures were adopted by Dr. R. in the treatment of this case, *e. g.*, cold applications to the head, when *great heat of head*, cerebral disturbance and flushed face existed. The patient remained in Hospital to be treated for Bronchitis, which was indeed detected on the 12th June by the stethoscope, but which remained unaffected by the treatment throughout the course of the fever, and was very severe at the time Dr. R. pronounced him completely cured.

CASE 5.

Ann McGee, aged 27, was admitted on the 10th June. She complains of coldness of the surface ; extremities are cold ; experiences a sensation of heat in the stomach ; tenderness over the abdomen, increased by pressure ; vomits constantly ; bowels regular ; tongue furred ; pulse 112.

This, which appears to have been a case of irritability of the stomach, owing to some cause not adverted to in the history, was treated by the non-homœopathic application of a succession of *hot poultices* to the abdomen, in addition to the administration of the globules. The poultices, which were changed every two hours, rest, and diet of bread and milk,

continued for four days, sufficiently account for this patient being discharged cured on the 14th June.

CASES 6 and 7.

Were two cases of Hysteria. One, a young girl, aged 18, suffered from great irregularity of the menses, and was subject to an hysterical attack about once in three months. She always recovered her ordinary health a few days after the subsidence of each fit. She was admitted on the 10th and discharged on the 14th June; the note for the latter day being "Is up, much better."

The second was an unmarried female, aged 22, who was admitted on the 3rd June, complaining of a variety of anomalous pains and aches in various parts of the body. Dr. R. treated her with globules of bryonia, aconite, belladonna, cantharides and cannabis. On the 8th June, she demanded her discharge, and was dismissed accordingly.

CASE 8.

Alice Early, aged 18, admitted on the 30th May, complaining of "pain in the stomach," was discharged by Dr. R. on the 8th June, carrying with her the "pain in the stomach." He requested her to call back in four or five days and report her condition.

CASE 9.

Ann Mulligan, aged 31, admitted on the 5th June, complains of constipation; bowels have not been opened for five days; has headache and pain over the eyes. To take 4 globules of pulsatilla in the evening.

6th June. Is not better; bowels still confined. To take 4 globules of pulsatilla this morning—2 of aconite dissolved in water at noon, and 2 of sulphur at bed-time.

7th June. No improvement; bowels still constipated. *To have an injection of tepid water.*

8th June. *Feels much better; the injection relieved the bowels.* Discharged at her own request. This patient suffered three days after being placed under treatment, from the presence of accumulated fæces in the intestinal canal, and found relief only from a non-homœopathic injection. So much for the efficacy of infinitesimals.

Did space permit, we might take up many other fundamental parts of the system of Hahnemann, and exhibit their absolute absurdity and falsity, such as his theory of chronic disease, &c., &c.

We forbear further remarks, however, as we have advanced the principal reasons, why we reject *in toto* the doctrine of infinitesimals, and why we look upon the system of medicine called homœopathy, as one deservedly meriting the contempt of every properly constituted mind in the profession.

Montreal, 12th March, 1852.

ART. XI.—*Cas de blessure de l'abdomen, protusion de l'Omentum, guérison rapide sans aucun mauvais symptômes.* J. N. BUXTON, M. D., Montréal.

Le 15 de Février dernier je fus demandé pour aller voir une femme du nom de Elisa S....., d'un tempéramment nerveux, et d'habitudes intempérantes, qui venait de recevoir un coup de couteau dans l'hypochondre gauche. Elle présentait les symptômes suivants : couchée sur un lit à terre et à demie ivre, et souffrant très peu ; la blessure d'à-peu-près trois quarts de pouce de long, pénétrait l'abdomen et laissait dépasser une petite partie de l'Omentum, l'hémorragie était peu considérable. Après avoir coupé ce morceau d'Omentum qui tenait très-peu au reste, je rapprochai les lèvres de cette plaie par le moyen d'emplâtres adhésives, et mis une bande autour du corps. A mon patient j'ordonnai le repos et la diète.

Le lendemain, le 16, à ma visite, la malade avait passé une assez bonne nuit, et n'avait souffert aucun inconvénient de sa blessure, qu'un peu de fièvre que je remarquai alors ; malgré mon ordre elle s'était levée plusieurs fois, et persistait à ne garder le lit que de temps en temps.

Prescription : Nitrate de Potasse grs. x.

Tartre Stibié gr. ¼.

A prendre toutes les trois heures.

17. La fièvre que j'avais remarquée la veille a disparu, et la malade continue à ne se plaindre de rien, et aussi à ne point garder le lit. La plaie que je pensai aujourd'hui semble se fermer rapidement.

La prescription fut suspendue.

18. Elle continue bien, et la blessure que j'ai vu dernièrement est parfaitement guérie.

En conclusion je remarquerai que les blessures pénétrantes de l'abdomen qui sont considérées comme dangereuses, n'ont produit en ce cas aucunes mauvaises suites. Ce qui m'a fait couper ce morceau d'Omentum, c'est qu'il était déjà presque séparé du reste; et qu'il aurait pu en se gangrénant, et agissant comme un corps étranger, produire une péritonite fatale. Le résultat m'a convaincu que j'avais raison d'agir ainsi spécialement comme il n'y avait aucun vaisseau assez grand pour donner lieu à une hémorragie interne.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Lectures on Materia Medica, and Therapeutics, delivered in the College of Physicians and Surgeons of the University of the State of New York, By JOHN B. BECK, M. D., late Professor of Materia Medica, and Medical Jurisprudence; prepared for the Press by his friend, C. R. Gilman, M. D., Professor of Obstetrics, &c., &c., New York, S. S. & W. Wood, 1851, 8vo., p. p. 581.

THE work, of which the foregoing is the title, lately issued from the press of the Messrs. Wood of New York, is another addition to the numerous publications upon the subject of which it treats. Being posthumous, and its preparation for the press interrupted by the lamented decease of its esteemed author, the labour of correction, revision, and addition, devolved upon Dr. Gilman, and were we merely to state that this important duty has been faithfully performed, it would be no more than doing the latter an act of bare justice. While the circumstances, under which the publication is presented to us, are such as to disarm criticism of much of its severity, yet some analysis of it seems imperatively demanded.

One of the principal difficulties encountered by all writers on the *Materia Medica*, is the attempt to classify and arrange the articles employed as Therapeutic Agents, for the purpose of simplifying their study, and facilitating the acquisition of the knowledge of their properties. In the different sciences, bodies are grouped together, when a common relationship has been observed between them, consisting in some physical peculiarity or chemical property, and sub-divisions are effected, based upon some minor differences. These classifications in the natural sciences hold good, but in the application of the principle to the *Materia Medica* the greatest obstacles are encountered, arising as much from the theories of the day, as from the difficulty of appreciating with exactitude the physiological action of the medicines themselves. But, fettered by no theory, unbiassed by no particular dogma, it is, we apprehend, possible to construct a classification of Therapeutic Agents, if we adopt, as our basis, their obvious and most characteristic effects upon the system at large, or upon particular portions of it, bearing in view their primitive influence. Of such character is the classification of Dr. Thompson, which is not even alluded to in the work before us, who, arranging medical agents under the three heads of vital, chemical, and mechanical, has proposed the most scientific classification with which we are acquainted.

Dr. Beck arranges medicines primarily into six great classes:—1. Evacuants, 2. Depressants, 3. Narcotics, 4. Excitants, 5. Revulsives, 6. Alteratives. In no part of the work is any meaning or definition

attached to the employment of these terms, and the reader's idea of them can only be gathered from the orders which have been placed under each. He subdivides the class of Evacuants into nine orders:—Emetics, Cathartics, Anthelmintics, Sialogogues, Diaphoretics, Diuretics, Expectorants, Emmenagogues, and Parturients. In the second class he has three orders:—Sedatives, Refrigerants, and Demulcents. The third class of Narcotics has no subdivision. The fourth class is subdivided into Stimulants, Antispasmodics, Tonics and Astringents. The fifth into Internal and External; and the last class Alteratives, into two, the Vital and Chemical.

Putting aside all critical examination of the orders contained in the first class of evacuants, although there is abundant exception to be taken to several, especially the classes of emmenagogues, and parturients, we will proceed at once to the second and third classes, in the former of which are enumerated sedatives, refrigerants, and demulcents, while the latter comprises no subdivision. The propriety of classing demulcents under the head of depressants seems more than doubtful, for, on examination, their operation on the economy cannot be considered in the slightest degree analogous to that of either sedatives or refrigerants; these two emphatically lower the powers of the vital system, and in a positive and direct manner; but we are at a loss to trace any such primary or even secondary effects accruing from the employment of demulcents, whose action, if physiologically viewed, will be found rather mechanical than vital, operating by diluting the mass of the circulating medium, and thus lessening the acrimony of the secretions.

But if a fair exception be thus taken to the assimilation of demulcents with sedatives and refrigerants, we are at a still greater loss to assign any satisfactory reason for the separation of the narcotics into a distinct class by themselves, apart from the depressants, when it will be conceded that depression of the vital powers is one of the most marked phenomena, attendant upon their exhibition. It is true that this depression is a consequence of a previous excitation, which is the less conspicuous in accordance with the amount of the dose, a feature unrecognized in the operation of sedatives, but still the phenomena comprehended under the term narcotism, characteristic of this class, indicate depression of vital action to a high degree, leading to the development of important secondary consequences, and are of themselves sufficient to have amalgamated this class as an order under that of the depressants.

Observations of a similar character may be urged in reference to the orders comprised under the fifth and sixth classes; and we therefore cannot avoid the reflection, that in his essay in classification, the author has by no means improved upon the past attempts, but has carried us back in this respect to the times of Cullen, Murray, and Young.

In the details of the work the author has brought to bear those keen perceptive powers based upon practical experience, for which he was so distinguished, and in the application of the various classes to diseases, he has enunciated most judicious rules, beneficial as well to the practitioner as to the student.

Dr. Gilman has added a chapter on anæsthetics. The observations are brief, yet consistent with the general plan of the work, which seems to have been intended rather to serve as a text book, than as an elaborate dissertation on the subject of which it treats. As a matter of some importance to our country subscribers, who may occasionally be required to avail themselves of the employment of chloroform, we subjoin the following extract, being

RULES FOR THE ADMINISTRATION OF ANAESTHETICS.

“ 1. The patient should not take food immediately before the operation. 2. The mind should be as far as possible calm and composed. 3. Quiet around is of the utmost importance; loud talking, addressing questions to the patient, &c., are all likely to interfere with the production of the anæsthetic state. 4. As to how rapidly the patient should be hurried through the state of excitement, there is difference of opinion, and a different rule should prevail as the agent is ether or chloroform. If ether is used, the stimulation is often troublesome, and the deeper stages of narcotism not readily produced. We ought therefore to hurry forward the process; place the cupped sponge over the nose and mouth, not pressing on the skin, but quite near, and urge the patient to take free inspirations, let them follow each other as rapidly as is consistent with their being *full* and *deep*. As to chloroform, Professor Simpson advises that the patient should be plunged as rapidly as possible into complete anæsthesia. This is not the course I would recommend; I think the practitioner will do better to feel his way a little, and allow the effects of the agent to develop themselves gradually. There will every now and then be trouble with the stimulating effects, but there will be less danger. 5. Care should be taken that the supply of atmospheric air is at all times adequate. There is little doubt but that several of the fatal cases depended on an inadequate supply of air. 6. Watch the case from the first inhalation, till consciousness and sensibility have completely returned. One person should in all operations have charge of the anæsthetic, and he should *think of nothing else*. In one fatal case, the attendant, who should have watched the patient, was looking at the operation, *and the man died*. The person who has this charge should keep his finger on the pulse *every single moment* of the time; not one beat should the heart give that his finger does not take note of; the

moment the pulse begins to flag or flutter, the inhalation should cease, and a puff or two of fresh air be blown into his face. As to the degree to which the effects should be carried, it will differ in different cases. In natural labour we need ordinarily go no further than to obtund pain, and this can generally, I think, be done without disturbing consciousness. In surgical operations, complete relaxation of the muscles, and profound sleep is generally required. This state, however, must be watched, and when the breathing becomes stertorous, the inhalation should be suspended. If the breathing is irregular or interrupted, the danger is imminent, and every means of keeping up respiration should be resorted to. Artificial respiration is the sheet anchor in such cases, and I have known great danger removed by prompt and continual artificial respiration. Every thing will depend on the coolness and self-possession of the operator. 7. When the patient is allowed to emerge into consciousness, every thing that can startle or shock should be avoided, and the brain allowed gently to recover its equipoise. Ammonia, oxygen, galvanism, &c., &c., have been proposed as remedies in excessive anæsthesia. They amount to nothing. Artificial respiration is the alpha and the omega."

To these plainly expressed directions, we would also add the following, that the anæsthetic should be exhibited in the recumbent posture if possible: Our own experience is closely allied with that of many recent writers on the subject:—convulsions are extremely apt to supervene when the anæsthetic is exhibited in the semi-erect or sitting position; and these are, therefore, postures which should, if possible, be avoided.

The manner in which the work is brought out, is highly creditable to the establishment of the publishers, and, as a whole, is well worthy of constituting an integrant portion of every medical library.

Illustrated Manual of Operative Surgery and Surgical Anatomy. By M. M. C. L. BERNARD, D. M. P. and C. H. HUETTE. Edited, with notes and additions, and adapted to the use of the American Medical Student, by W. H. VAN BUREN, M. D., and C. E. ISAACS, M. D. New York, BALLIERE & Co., 1852.

WE have received from our enterprising fellow-citizen, Mr. Dawson, the first part of the above work, which is got up in a manner, superior to any thing we have seen issue from the American Press. It is intended for the student and junior practitioner; but, we doubt not, it will be found equally acceptable to the senior practitioner. Each operation is clearly, yet fully, described, and alongside of the drawing, representing the mode of operation, is a beautifully executed coloured representation of the

Surgical Anatomy of the parts. The present part contains 84 pages of letter-press, and 30 coloured lithographs—for which the small sum of 16s. 6d. is charged—the plates alone being worth twice the amount. We have not much to thank the American Editors for in the way of notes and additions, for they have only added two very unnecessary ones. We throw this out as a suggestion; for they may rest assured, that British Surgeons, in general, are but slightly acquainted with the rapid progress of American Surgery, and we know of none better qualified for enlightening their brother practitioners on this subject, than the accomplished Surgeons who have undertaken the translation and editing of this treatise. Mr. Dawson is the agent in this City for the sale of the work, and we would strongly recommend our brethren in the country districts to avail themselves of this opportunity of procuring, on such favourable terms, a work on Surgical Anatomy and Operative Surgery.

The Elements of Materia Medica and Therapeutics, By JONATHAN PEREIRA, M. D., F. R. S. and L. S., *third American edition, enlarged and improved by the author, &c., edited By JOSEPH CARSON, M. D., Professor of Materia Medica, and Pharmacy in the University of Pennsylvania, &c. Vol. 1, Philadelphia. Blanchard & Lee, 1852, 8vo. p. p., 838.*

Of a work so generally accepted by the profession of both continents, little requires to be said. The present edition, issued by Messrs. Blanchard & Lea, is printed with the approval of the author, and it embodies all the recent discoveries, which have taken place in reference to the subjects of which it treats, since 1849, and is furthermore enriched by the labours of the American editors in the same field. An analysis of such a publication is out of the question. It is a book for reference, valuable both to the student as a vade mecum, and to the practitioner; and emphatically is the most comprehensive, as well as the best treatise, on the subject in our language. We long for the appearance of the second volume, of which the present is but the instalment, which, according to the publishers, will appear in July or August next.

Medical Lexicon—A Dictionary of Medical Science, containing a concise explanation of the various subjects and terms of Physiology, Pathology, Hygiene, Therapeutics, Pharmacology, Obstetrics, with the French and other Synonyms, &c. By ROBERT DUNGLISON, M.D., *Professor of the Institutes of Medicine, in Jefferson Medical College, Philadelphia, 8th Edition revised and greatly enlarged. Philadelphia, BLANCHARD & LEA, 8vo. p. p. 927.*

THE best proof of the value of a publication is the rapidity of its sale, or the demand for it, and this is truly the case with reference to the work which

we are now noticing. It is scarcely two years since the seventh edition was published, and we are now called upon to chronicle the advent of the eighth, enlarged and enriched by the addition of about 4000 terms to the 9000 comprehended in the last. It is a work of labour, and removed beyond the sphere of criticism, except that which attaches to commendation. It should be in every medical library; and is the best and most perfect lexicon of medical terms in the English language. Familiar with all, we pronounce it the best.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Case of Fracture of the Skull, with Loss of a Portion of the Substance of the Brain ; Recovery. By JAMES C. FITCH, M. D.

ON the 19th of July, 1849, George D. Fitch, aged eleven years, son of the writer, was thrown from a horse, and after regaining the erect position, was kicked by the animal on the head. This occurred about seven o'clock, P. M.

He was borne to his residence perfectly insensible, and in a state of complete prostration. On examination, there was found a compound comminuted fracture of the skull, at the superior part of the junction between the right parietal and temporal bones; a portion of the bone, about two and a half inches in length by about an inch in breadth (or the width of the horse's shoe), having been driven in upon the brain.

The hemorrhage was profuse, and in dressing the wound a portion of the brain came out. Reaction did not take place until four o'clock the next morning, patient still remaining in a comatose state.

July 20th. Dressed the wound with Dr. W. P. Clark,* of Belvidere, when another portion of brain came out.

21st. In dressing the wound to-day; a portion of the brain one inch in length protruded, but was confined by the membranes. Patient manifested sensitiveness when this was touched; but in other respects continued in the same insensible condition as heretofore. Not able to swallow anything. The strength of two or three persons is required to keep him on the bed, and he lies still at no time, more than three minutes.

* To Dr. W. P. Clark, my friend and more than brother, I would here tender my grateful acknowledgments for the promptness with which he responded to my call, and for his punctual and daily attendance for more than three weeks (though living at a distance of ten miles), as well as for the consolation he afforded me in my affliction.—J. C. F.

25th. Continues much in the same condition. Put a little water in his mouth, part of which ran out. A little seemed to go down the throat, and gave rise to strangling and spasms, resembling somewhat spasms of hydrophobia.

27th. Opened his eyes for the first time since the accident, and took notice of a glass of water in my hand, and seemed desirous of drinking, but was unable to swallow. An hour afterwards, he again opened his eyes, and the water was offered him, of which he seemed to swallow a little. In another hour, he, by looks, expressed a desire to drink, and on presenting him the glass, he bit a piece from it, which he held so firmly in his mouth that it was with great difficulty extracted. Up to this time he had received no nourishment whatever, except from enemata of arrow-root and milk.

28th. Looked up and spoke a word indistinctly—being the first word he had spoken since the accident. For the first time he seemed to recognize his friends. He also to-day received nourishment into his stomach for the first time, taking every two hours a teaspoonful of milk, thickened with arrow-root; this was continued until Wednesday, August 1st, when one cracker in twenty-four hours was added to the above. This plan of giving nourishment was continued till Friday, August 3rd, when he rejected all that had previously been given by the mouth, showing that the stomach had been incapable of performing its function. The act of vomiting exhausted him to such a degree that we feared the vital force was expended. A few drops of strong brandy were given every few hours, and in the course of two days he had regained his former position, and from that time the nourishment given him by the mouth seemed to be digested without difficulty.

Aug. 9th. Patient having had no discharge from the bowels since the accident, at the recommendation of my friend, Dr. Clark, a suppository was given, which had the desired effect. The wound looks well. Two pieces of bone were removed. Patient seems to be perfectly sensible, and, though he has great difficulty in articulating, converses on ordinary topics. He has no recollection of what has passed during the last few weeks, expressing by his looks much astonishment, when informed of the length of time that has elapsed. Has the appearance of just having awakened from a sound sleep.

13th. Wound looks well. With assistance, he got up and walked across the room.

15th. Appetite and digestion very good. Bowels moved daily by injections.

18th. The wound still improves, and with it his general health. Experiences much difficulty in articulating some words. Recognizes per-

sons and things, but cannot tell their names, though when the name is once repeated, he retains it. For instance, a friend called to see him; and though he seemed by his looks to recognize him, he could not call his name until it was repeated to him, after which he had no difficulty as far as that particular individual was concerned. All eatables he calls *bread*, until he hears their names called. When he wishes an article of which he cannot call the name, he can describe it and compare it to things of which he does know the name, so that he can be understood.

His loss of memory seems also to involve the memory of things as associated with taste. For instance, being very fond of raspberry brandy, he desired some, but not being able to call it by name, he succeeded in giving his mother to understand that it was kept on an upper shelf in a cupboard in the room, and with considerable difficulty made her understand that it was in a bottle. Fearing the stimulant effect of the brandy, it was easy to satisfy him with a little sweetened water, which he supposed was the raspberry brandy.

Sept. 14th. Wound continues to improve. Patient has been out riding. Recollects the circumstances connected with the accident, and relates them very correctly. Continues to experience difficulty in articulating some words. Still recognizes persons and things without being able to call their names.

Oct. 19th. Wound slowly healing, discharging a large quantity of pus daily. Complains when he coughs. Memory, and the difficulty in articulating words, improving.

Nov. 19th. Wound still discharges. Complains of weakness in his *right* arm. Very active; health good; articulation improving. Goes to school. Has difficulty in remembering some of the letters of the alphabet, and some words. Has difficulty in forming some of the letters in writing. His memory fails in mathematics, but when one example is performed for him where he left off in algebra, his knowledge is revived, and he can perform other examples without assistance.

25th. In dressing the wound, a portion of bone came out.

Dec. 8rd. Wound still discharging. A small piece of bone came out.

19th. Five months since the accident. Wound still discharging. Two small pieces of bone came out.

Jan. 19th, 1850. Wound still discharging.

March 19th. Wound discharges a great deal. Health very good.

May 9th. Extracted a piece of bone from the wound which caused a profuse hemorrhage. This is the largest piece of bone that has come away.

June 13th. Extracted a piece of bone.

July 19th. One year since the accident. Wound still discharging.

A piece of bone looks as if it would come away soon. Enjoys good health, learns well, is active, and in all respects mentally sound.

Sept. 1st. Wound seems closed. 15th. Wound discharging much matter. 16th. Extracted a portion of bone.

Dec. 20th. Extracted a large piece of bone, after which the wound closed up and is perfectly sound to this day, Nov. 16, 1851.

Remarks on the above Case. By S. W. BUTLER, M. D.

THE rare occurrence of severe injuries to the brain, and the very great danger that necessarily accompanies such lesions, when they do occur, combine to throw around them an interest which attaches itself to no other species of injury. Until the celebrated Percival Pott, by his judicious teachings and writings, completely revolutionized the whole plan of treatment in injuries to the brain, they were much more frequently fatal than at present. Perhaps in no one department has modern surgery achieved a greater triumph than in this. It is a popular notion, and even some of the profession are involved in it, that injuries to the brain, more especially where any portion of its substance has been lost, necessarily involve loss of life.

Such, indeed, was generally the case before the observations and untiring energy of Pott, and others of his time, introduced more rational methods of treating such injuries than had been pursued before. Yet we doubt whether the credulity of even a Pott would not have been somewhat taxed, had he read reports of the success in treating some cases of injury to the brain which have occurred in modern times. Doubtless some of our readers may remember a case published two or three years since, by Dr. Harlow, of Cavendish, Vermont, in which a man recovered after having had an iron bar or "tamping-iron," three feet seven inches in length, one and a quarter inches in diameter, weighing thirteen and a quarter pounds, driven "with a crash" through his brain high into the air, and thrown several rods beyond him, where it was picked up "covered with blood and brains!" This is no fancy picture, drawn to task credulity, but a well authenticated fact. The patient, Phineas P. Gage, is probably still alive, and retains in a perfect degree his mental powers. Indeed, at no time during his recovery, was his mind seriously affected. In this case, the iron bar entered near the angle of the lower jaw of the left side, and passing upwards, involved the left eye, so as ultimately to destroy vision in it, and finally passed out near the centre of the frontal bone just in advance of the coronal suture. It, therefore, in its course, involved only the anterior lobes of the brain, consequently, not necessarily involving those parts, whose peculiar func-

tion it is to govern the movements on which life is absolutely dependent. Probably there is not on record a case of recovery from such an extensive lesion of the brain as the one just mentioned.

Indeed, though the writer has examined a number of surgical works, he has not succeeded in finding the report of but one other case of injury to the brain, with loss of a portion of its substance, followed by recovery. This was published by a Dr. J. Snyder, of Va., during the last year, in the *Stethoscope, or Virginia Medical Gazette*. Two cases, published by the late Prof. Sewall, of Washington city, are referred to by the American editor of *Cooper's Surgical Dictionary*, but we have not succeeded in procuring the Journal containing them.

So far as the writer has examined, Pott neither reports nor speaks of a case where any portion of the substance of the brain was lost. In the case spoken of above, reported by Dr. Snyder, the patient, a lad about eight years of age, was run over by a horse, and thrown against a stone, which caused an extensive fracture and loss of a considerable quantity of the cerebral mass. These, with the rapid recovery, were the principal points of interest mentioned in this case. The patient recovered from the effect of the injury in less than four months.

In the case reported above by Dr. Fitch, there are several points of very great interest in a physiological, as well as a pathological, point of view. We have neither time nor space to do more than refer to them now, leaving our readers to comment on them at leisure.

As the injury received was by a blow on the side of the head, it is evident, that aside from the fracture and depression caused by the blow, there was a possibility of another effect, viz.: extravasation on the opposite side, the result of what the French term *contre coup*; and that this did occur, seems probable from the fact that there was, as long as four months after the receipt of the injury, a weakness in the patient's *right* arm. Another thing worthy of attention is the fact, that the jactitation and the spasmodic action in the fauces, when the patient attempted to swallow fluids, bore some resemblance to the morbid nervous action of a patient laboring under an attack of hydrophobia. It is evident, that the nervous influence supplied to the stomach, was insufficient to enable it to perform its function for the period of two weeks, during which time the patient was nourished wholly by enemata of milk and arrow-root; and that the lower bowels readily assumed the duties thus thrown upon them, is proved by the fact that, although these injections were used daily from the time of the accident, yet it was full three weeks before there was any discharge from the bowels, when a purgative suppository was used with success.

Another interesting feature in the case is, the great length of time that elapsed before all the fragments and spiculae of bone were discharged, viz., one year and five months. During all this time, although an exhausting drain was kept up, and that so near the brain, the patient improved constantly both mentally and physically.

But there still remains the most interesting feature in the case, viz.: the effect of the injury on the patient's mind, and on at least one of the organs of special sense—the taste. Why was it that the patient retained the memory of the *countenance* of an individual while he had forgotten his *name*? On what physiological principle was he able to describe the shape, size, appearance, and position of an article he desired, while he could not call it by name? Why did he find it so difficult to remember the names of *some* letters of the alphabet, while he had no difficulty whatever with *others*? To say, simply, that he had lost the memory of *names*, is by no means a sufficient answer to these inquiries. It would seem too, that the effect on the *taste* involved not the *loss* of that sense, but the inability to remember the taste belonging to a particular article.

The writer, not feeling competent to undertake the solution of the interesting questions started in this connection, will here bring these already too extended remarks to a close, with the hope that others may be led to think and observe on the subject, should they have the opportunity to do so, and record minutely such facts as may present themselves.

[We publish the foregoing case, because it is a remarkable instance of recovery from a most serious accident; but we must remind our readers that the practice of leaving loose portions of fractured bone, to cause suppuration of the brain, is by no means to be imitated.—*Eds.*]

Case of Imperforate Anus. By CHARLES DUNHAM, M. D.

I WAS called, on the evening of Oct. 5th, to visit a child of a boatman—on the second day of its birth. I found the child very fretful and uneasy—the abdomen was much distended and discoloured, and, from information of its mother, the fæces had been frequently vomited up through the day. I immediately suspected the nature of the case, and, upon examination, found nothing but a slight indentation to mark the orifice of the anus. As an operation was inevitable, I determined to perform it immediately. Having procured a bistoury, I made a longitudinal incision, and extended it upwards in the direction of the os sacrum, until I reached a cavity. Upon withdrawing the instrument, to my delight, the meconium flowed copiously. The child was placed

in a warm bath for a few minutes, after which, a tallow bougie was introduced to prevent adhesion. The little patient seemed much relieved, and dropped into a pleasant sleep. The bougie was continued for a few days, with the occasional use of small doses of castor oil, and the child was so nearly recovered in the course of a week, as to enable its parents to proceed on their journey. I had some apprehensions that the sphincter muscle might be destroyed, but, having had an opportunity of inquiring a few days since, I find that no difficulty has arisen from that source, and the child is in good health.—*New Jersey Medical Reporter*.

New Operation for Stricture.—By Mr. SIMON.

WHERE it is of importance rapidly to relieve a distended bladder, depending upon impassable stricture, Mr. Simon has, in several instances, performed a very simple and effectual operation, which has the additional advantage of being equally adapted to cases of simple permanent stricture and those complicated with retention. Mr. Simon passes the finger of the left hand into the rectum, and feels for the prostate gland: so soon as he has well made out the position of this, he plunges a narrow bistoury into the raphe, about an inch anterior to the rectum, and carries the point of it towards the tip of the finger; the back of the knife is turned towards the finger, and thus the urethra is at once reached, posterior to the stricture. This immediately relieves the retention, and he then allows the stricture time to dilate a little, which it does when the pressure is taken off from behind, and then it can be dilated by the bougie, &c. Mr. Simon has performed this operation in several cases with success. The first case of all was that of a man who was sinking rapidly, the bladder distending, the tongue growing brown, and typhoid, great anxiety, &c., and who would have died before the ordinary operation of cutting down upon the stricture could have been executed. It was accomplished in a very short time, and was quite successful.—*Medical Gazette*, Dec. 20, 1851.

On the Local Treatment of Suppurating Joints.

SURGEONS in general are averse to making incisions into joints, under a vague impression that the contact of air is prejudicial. The fallacy of such impressions so clearly demonstrated by Mr. Gay, is also exhibited by Mr. Solly, in some clinical remarks on injuries of the knee-joint. He says:—

With regard to the local treatment, I have no hesitation in recommending a free opening into the joint, where there is extensive suppuration, and much constitutional irritation in consequence ; and on this subject I think the opinion of Mr. Rutherford Alcock of infinite value, from his great experience. He says :—

“ The great object, then, is, firstly, to prevent the deposit and accumulation of matter in the articulation, which, notwithstanding all that has been said of its bland, innocuous nature, previously to the admission of atmospheric air, quickly erodes all the articulating surfaces, in the generality of cases ; I have seen exceptions, but they are few ; and, secondly, to prevent the matter from burrowing among the muscles extending upwards and downwards, thus involving the whole limb in a suppurative and disorganizing disease.

“ No sooner, therefore, is suppuration established, than it becomes necessary to devise the best means of obtaining its evacuation, and to secure its draining off, in proportion, or as fast as it forms. Any fears of the contact of air, I cannot but think, are out of place. The matter will do more mischief by being allowed to lodge. Counter openings in pendant positions, and free incisions, either in the vicinity, or, if necessary, through the capsule, should be promptly and boldly practised, together with such regulated pressure, above and below the articulation, as the state of the limb may indicate and allow, in order to counteract the tendency to spread and burrow.”—*Lancet*, January 10th, 1852.

Staphyloraphie chez les Enfants.

M. SÉDILLOT adresse une note sur la possibilité et les avantages de la staphyloraphie chez les enfants d'après les règles de sa nouvelle méthode.

Toutes les personnes opérées de la staphyloraphie, dit l'auteur, ne recouvrent pas le libre exercice de la parole. Leur voix reste souvent nasonnée, et la prononciation de certains mots est difficile et vicieuse.

Cet état s'explique par l'incapacité des malades à bien parler, et par la malformation de leurs organes.

Si l'on n'a pas appris une langue dans son enfance, seule époque de la vie où les prononciations s'acquièrent avec une merveilleuse facilité, il est fort rare d'arriver jamais à perdre tout accent d'origine étrangère. Non-seulement la voix se refuse à exprimer nettement certains sons, mais l'oreille ne les distingue pas ; et si un maître exercé nous les fait entendre, nous les répétons tout différemment sans le soupçonner.

La plupart des opérés de la staphyloraphie se trouvant dans les con-

ditions semblables. Ils doivent apprendre leur propre langue qu'ils n'ont jamais su prononcer, et ils éprouvent les mêmes difficultés que pour une langue étrangère.

On parvient à leur faire exprimer assez clairement les mots sans nasonnement marqué ; mais dès qu'on n'est plus là pour les guider, la prononciation redevient irrégulière et défectueuse.

C'est là un des inconvénients de l'âge avancé auquel on a pratiqué la staphyloraphie jusqu'à ce jour, et il était fort à désirer que l'on pût exécuter cette opération sur des sujets plus jeunes et plus aptes à en recueillir les bénéfices.

Les diverses parties d'un même appareil se produisent et se développent dans un état de dépendance réciproque, et les vices d'organisation de l'une d'elles impriment des modifications plus ou moins profondes aux organes congénères.

Les cavités buccale et nasale subissent cet ordre d'influence chez les personnes atteintes de division congénitale du voile du palais. Les ailes du nez, pour nous borner à cet exemple particulier, se resserrent et tendent à rétrécir l'orifice nasal dans tous les cas où l'air doit être retenu pour la formation de la parole.

On conçoit dès lors que plus on aura retardé la staphyloraphie, et moins les malades en profiteront en général, puisqu'ils auront ensuite à lutter contre des vices d'organisation très-difficile à corriger.

L'indication à remplir consisterait à pratiquer la staphyloraphie dès les premières années de la vie, et il n'est pas sans doute impossible que l'on y parvienne.

Jusqu'à ce jour les difficultés du MANUEL OPÉRATOIRE, celles encore plus grandes de la réunion immédiate du voile du palais, et la force de volonté nécessaire aux malades pour rester plusieurs jours sans même avaler leur salive, avaient fait retarder l'opération jusqu'à l'âge de 15 à 16 ans ; et pour plus de sûreté les parents exagéraient ce retard, et pouvaient se croire fondés, d'après l'opinion commune, à espérer ainsi de meilleures chances de succès.

C'est une erreur qu'il importe de détruire aujourd'hui que nous pouvons opérer beaucoup plus tôt les malades en suivant les règles de notre méthode ; et j'attendais avec impatience le moment d'en établir expérimentalement la preuve.

Cette occasion m'a été dernièrement fournie par un de mes honorables collègues et amis, M. le docteur Schneider, qui m'a appelé à traiter une jeune enfant de 10 ans atteinte de division congénitale et complète du voile du palais.

La staphyloraphie, pratiquée le 12 novembre de cette année, réussit parfaitement, et la parole est déjà devenue (25 décembre) plus claire et

plus nette qu'elle ne l'était au bout de plusieurs mois chez un jeune comte allemand, âgé de 25 ans, que j'ai opéré cet été.

La staphyloraphie rendue applicable à l'enfance et donnant des résultats plus avantageux et plus certains, nous paraît constituer un véritable progrès, et nous aurons l'honneur de continuer à communiquer à l'Académie les faits qui confirmeront ces remarques.—*Gaz. Méd. de Paris.*

On Operations for Impassable Stricture of the Rectum. By J. B. CURLING, Esq.

Two operations are recommended: one, the opening of the colon in the left groin; the other, opening the bowel in the left lumbar region. Mr. Curling thus speaks of their relative merits:—"A careful consideration of the advantages and disadvantages of the two operations, leads me to give the preference to the former. I do not ground this conclusion upon the tables of Amussat and Vidal, because I do not attach much value to them. The cases of Littré's operation are not only limited in number, but in several of them the colon was not opened in the left groin, the division of the peritoneum being the only circumstance in common. Nor do the tables afford information of the period of constipation, or of the extent to which the viscera were disturbed in the operation. Callisen's operation is not only difficult of execution, but the wound is necessarily of large size, especially in stout people. But it is not so much for these reasons that I am indisposed to adopt it, as in consequence of the operation leaving the patient exposed, afterwards, to risks and annoyances, which are in a great measure avoided when the colon is opened in the groin. Thus I find, in the published account of several of these cases, that the artificial anus in the loin had a strong disposition to contract, so as to interfere with the passage of the fæces, and that repeated dilatation was necessary to secure the patency of the opening. It is also extremely difficult to adjust any apparatus to prevent the continued escape of flatus and fæces; and as the orifice is without the observation of the patient, he becomes dependent on the assistance of others. These serious inconveniences, if experienced at all, are much less so when the aperture is in the groin. The patient can attend to the part himself. The aperture does not show the same disposition to contract, and it admits of being closed by a well-adapted truss. These advantages, so important to the comfort of the patient, are by no means counter-balanced by any increased risk in opening the peritoneum. The operation is easily performed, and as no exploratory attempt is necessary to relieve the obstruction, a very small opening in

the peritoneum is sufficient for the object in view. Even Callisen's operation is not entirely free from risk of peritonitis from disturbance of parts; and the magnitude of the incision probably renders the danger to life, from its performance, quite as great as that resulting from the operation in the left iliac region, carefully performed.

"The abdomen may be opened in the left iliac region by a perpendicular incision about three inches in extent, commencing two inches above Poupart's ligament, and an inch external to the epigastric artery. The fibres of the abdominal muscles being cut across, will help to keep the wound open. The peritoneum being divided, the distended colon will immediately protrude at the wound. A curved needle, armed with a silk ligature, being passed through its coats above and below to prevent its receding when emptied, the bowel may be opened for the space of an inch between the retaining ligatures."—*Observations on Diseases of the Rectum*, p. 106.

Five Calculi Removed by Lithotomy, each containing a Field Bean as a Nucleus.

THE following remarkable case is related by Dr. Mackenzie:—A labourer, aged 46, was admitted into the Edinburgh Infirmary with the usual symptoms of stone. On sounding, the presence of more than one calculus was ascertained. The lateral operation was performed on the 13th of October, and five stones were removed. The prismatic shape and uniform size of these were remarkable; but the presence of a foreign body as a nucleus was not suspected until the stones had been dried by evaporation, when a hard substance was heard to rattle loosely within them. On making sections of these calculi, the nuclei were found to be horse-beans. The calculous incrustations consisted of the triple phosphates.

The history of this remarkable case is as follows;—About the end of March of the present year, after a carousal with two fellow-labourers, with whom he lodged in a barn attached to his master's farm, a quarrel arose, in which he was knocked down and overpowered by his two companions. From the injuries he received, and from his state of intoxication, he was rendered senseless, and, whilst in this condition, the following cruel trick was perpetrated on him by his assailants:—

He was stripped of his clothes, and a quantity of beans (the common field or horse-beans, used for feeding cattle) were thrust into his mouth and into the rectum; and lastly, several were introduced into his urethra. The manner in which these found their way into the bladder is unknown,

but it is probable that several were introduced, one after another, into the orifice of the urethra, and then pushed back along the canal by the pressure of the fingers on the penis and perineum.

On the following morning he was found in a state of insensibility, with his genital organs covered with blood. His companions had made off, and have ever since escaped detection.

A number of beans were vomited, and passed *per anum* on the day following the assault, and during this and the subsequent day he suffered great pain in voiding his urine, which was mixed with blood, and contained several fragments of broken beans.

He was confined to bed for some days, but at the end of a week he had nearly recovered from his injuries, and his urinary symptoms had considerably abated in severity.

From that time forward, however, he continued to suffer more or less severely from the usual symptoms of stone in the bladder, which were well marked at the time of his admission into the hospital.—*Edinburgh Monthly Journal*, Jan. 3, 1852.

PATHOLOGY AND PRACTICE OF MEDICINE

Etude expérimentale sur la Suppuration Bleue et recherches sur la Pyogénie et sur la Composition du Pus.

M. PETREQUIN adresse un mémoire sur la suppuration bleue avec des recherches nouvelles sur la pyogénie et sur la composition du pus. Voici le fait qui a servi de point de départ à ces recherches elles-mêmes.

“ Le 31 juillet 1851, Modeste M^{***}, âgée de 16 ans, ouvrière aux Brotteaux, près Lyon, est apportée à l'hôpital pour un écrasement du bras gauche tout entier. Le sacrifice du bras parut inévitable, mais la famille ne s'y décida qu'après que la gangrène se fût emparée d'une partie du membre. Le 7 août, je pratiquai la désarticulation de l'épaule..... Ce ne fut que vers le 19 août que les pièces de pansement commencèrent à offrir une coloration insolite, d'une teinte verte, tirant sur le bleu ; le phénomène continuant à se reproduire, j'entrepris, le 23, une série d'expériences pour en découvrir le mécanisme et la nature.

“ Mon premier soin fut de recueillir du pus pour le soumettre à l'analyse microscopique ; le 24 août, je priai M. le docteur Desgranges, qui s'est exercé à ce genre d'études, de vouloir bien en faire l'examen. Ce qui résulta de ces recherches, ce fut que les globules et les autres corpuscules observés dans ce cas, ne différaient ni par leur nombre ni par leur figure de ceux qui caractérisent le pus de bonne nature.

“ Il fallait donc diriger mes recherches d'un autre côté ; je m'occupai

d'abord de bien préciser les caractères physiques du pus et des colorations vertes ou bleues. Une première distinction me parut devoir être faite entre la couleur du pus et celle des pièces d'appareil : le pus lui-même n'était pas bleu, il offrait une teinte verte, tirant sur le gris-verdâtre ; pour la consistance, il se rapprochait du pus crémeux, il était d'ailleurs fétide et nauséabond.

“ Les pièces de pansement seules étaient bleues, et encore ici devait-on distinguer deux teintes, l'une plus profonde, sensiblement verdâtre, et l'autre plus superficielle, évidemment bleue ou d'un vert bleu.

“ Ce point de départ assuré, je demandai à la chimie les moyens d'obtenir une connaissance plus approfondie des faits ; en m'aidant de l'expérience éclairée de M. Burin du Buisson, pharmacien-chimiste à Lyon. La couleur verte du pus est un phénomène qui n'est pas rare, mais dont la cause est restée jusqu'à ce jour assez problématique. Nos expériences nous portèrent tout d'abord à l'attribuer à du sulfure de fer, et peut-être à des sulfures alcalins ; mais nous avions contre nous l'opinion de plusieurs savants qui nient la présence du fer dans le pus, attribuant l'oxide qu'on y a démontré, à une certaine quantité de sang qui aurait été contenu dans le pus. Il est vrai que d'autres chimistes, entre lesquels il nous suffira de citer l'illustre Berzelius, ont soutenu l'opinion contraire. Dans cette divergence d'avis, cependant, de nouvelles recherches devenaient nécessaires ; elles ont été répétées et variées de manière à ne laisser aucun doute sur les résultats. Or, par quelque méthode d'analyse que nous ayons essayé le pus, nous y avons toujours trouvé du fer.

“ Chez notre jeune fille, le pus verdâtre appartenait à la variété du pus fétide ; avant de donner lieu à des colorations bleues et vertes, il avait déjà commencé à dégager beaucoup d'odeur, ce qui continua encore quelque temps après que ces phénomènes de couleur eurent cessé. Or le pus fétide a subi, généralement sous l'influence de l'air, une altération qui donne naissance à de l'hydrogène sulfuré par la décomposition de l'albumine qui contient beaucoup de soufre, ainsi que la fibrine.

“ Un autre résultat de l'altération qui caractérise le pus fétide, c'est le développement de l'ammoniaque.

“ Ces deux produits engendrent une troisième combinaison, c'est l'hydro-sulfate d'ammoniaque qui paraît se dégager avec excès, tantôt de l'acide, tantôt de l'alcali.

“ Or la réaction de l'hydrogène sulfuré sur le fer du pus détermine dans ce liquide une coloration verdâtre provenant du sulfure de fer qui s'y forme ; Berzelius a signalé particulièrement cette réaction, en spécifiant que “ cette teinte verte caractérise le sulfate de fer disséminé en molécules très-déliées dans les dissolutions. ” (CHIMIE, t. VII, p. 61.)

“ On sait qu’il existe du manganèse dans le sang. Encouragé par les résultats des recherches mentionnées ci-dessus, nous nous sommes occupés de poursuivre la recherche du manganèse dans le pus, et nous l’y avons trouvé dans les résidus dont nous avons préalablement enlevé le fer et où il se manifestait à nous, suivant les réactifs que nous employions, tantôt par les caractères propres au manganate de potasse basique (caméléon vert minéral), tantôt avec d’autres caractères également exempts d’incertitude.

“ Le pus vert étant connu, il restait à étudier la coloration verte qui se remarquait sur les linges de pansement.

“ Cette couleur était franchement verte, d’une teinte plus foncée que le pus lui-même ; elle n’existait que dans les points du linge en contact avec le pus. Elle paraissait tenir à la fois à un dépôt de pus qui avait comme déteint sur le linge, et peut-être aussi à une modification opérée sur le tissu.

“ Nous l’avons rapportée également à un sulfure de fer ; et nous avons confirmé cette conjecture par les résultats d’une expérience dans laquelle nous sommes parvenus à reproduire artificiellement la même couleur.

“ Quant à la coloration en bleu de ces mêmes pièces, M. Sédillot, qui s’est aussi occupé de la question, soupçonne que le linge joue, dans cette coloration, un rôle spécial ; mais il reconnaît en même temps qu’il n’est pas parvenu à établir nettement le fait. Je ne suis pas arrivé moi-même à une solution complète, mais je crois avoir fait un pas de plus vers le but. Voici les expériences que j’ai tentées dans le but de résoudre cette difficulté.

“ Avec la charpie et les compresses de l’hôpital, la coloration bleue était manifeste chaque matin. Elle manquait, ou au moins elle était masquée, si toutefois elle se produisait encore, quand on employait des compresses trempées dans une solution métallique susceptible de donner une réaction fortement colorée ; en voici un exemple :

“ Je pensai la plaie avec un premier linge préalablement plongé dans une solution de sulfate de fer, et un second plongé de même dans de l’eau de sous-acétate de plomb. Tous les deux étaient parfaitement secs, et furent séparés par une feuille de papier mou. Le lendemain, on ne trouva qu’une manifestation de l’hydrogène sulfuré, et non une suppuration bleue : le premier linge était coloré en bleu vert foncé, noirâtre (sulfure de fer), et le second en noir (sulfure de plomb). L’acide nitrique et l’ammoniaque n’altéraient pas ces couleurs. Le papier mou n’offrait rien par lui-même ; il était plutôt sali par le fait des compresses contiguës.

“ Pour m’en assurer, j’exécutai un pansement avec le papier mou

seul ; il n'y eut pas de coloration bleue, mais seulement quelques taches sales et verdâtres exclusivement dans les points en contact avec les bandelettes de diachylon qui servaient à le maintenir et qui étaient devenues noires.

“ Je revins à l'appareil ordinaire avec la charpie et la toile de l'hôpital, et la coloration bleue reparut aussi évidente que jamais.

“ Les pièces de pansement paraissant jouer un rôle important, alors je pris ce même linge qui avait été coloré en bleu : on le lava à l'eau distillée, après l'y avoir fait bouillir, avec la précaution de le rincer à plusieurs reprises. Je m'en servis ensuite pour panser la plaie ; il ne survint point de coloration bleue ; on n'apercevait que quelques taches verdâtres dans les points qui touchaient aux bandelettes de diachylon.

“ Je craignis alors que le phénomène de la suppuration bleue n'existât plus ; et pour m'en convaincre, je revins encore à l'appareil ordinaire avec la charpie et la toile de l'hôpital. La coloration bleue se reproduisit comme aux premiers jours, mais un peu plus pâle.

“ Je méditais déjà de nouvelles recherches et j'avais tout lieu d'espérer une prompte solution, lorsqu'un changement favorable dans l'état de la malade produisit un changement correspondant de la nature du pus qui cessa d'être fétide et de produire sur les pièces d'appareil les effets de coloration manifestés ci-dessus. Si un nouveau cas semblable se présente à moi, et j'ai déjà fait remarquer que le phénomène n'est pas très-rare, je ne manquerai pas de poursuivre et, peut-être, de terminer mon travail. ”.—*Gazette Médicale de Paris*.

MIDWIFERY.

Some practical observations on Pelvic Abscesses. By FLEETWOOD CHURCHILL, M. D., Fellow of the King and Queen's College of Physicians, Ireland, &c., &c.

THE peculiar disease, then, to which I would very briefly call your attention, is that phlegmonoid inflammation, which, by some, is termed pelvic abscess, and by others inflammation and abscess of the uterine appendages, according as the attempt is made to be more or less explicit. Of the nature of the disease, there is no difference of opinion among modern writers ; the older ones, indeed, regarded it as a metastasis of the milk, and termed it “ milk abscess.”

I have no doubt that the attack is much more common than is even yet believed, although the attention of the profession has been latterly a good deal directed to the subject by writers in Dublin, London, Edinburgh, and France. Within two months this year, for example, I was called to three such cases.

We find this local inflammation occurring under very different circumstances, some of which we should hardly have anticipated.

1. It may occur, not only unconnected with parturition, but in unmarried persons at different ages, and independent of all the ordinary irritants of these organs. A case occurred in the person of one of the nurses at the Meath Hospital, a single woman, about 50 years of age, and without apparent cause. It exhibited the usual symptoms which I shall notice by and by, and ran the usual course, softening and opening into the rectum, after which the patient recovered.

2. I have seen several cases of the disease in married women who never had had children; in two instances it occurred within a few months of marriage; in both the tumefaction was considerable, but both terminated in resolution.

3. In some few cases, it occurs as a secondary complication of severe uterine irritation, apparently from the use of local irritants, the too frequent employment of the uterine sound, the introduction of the pronged pessary, &c.

4. I have seen the disease follow a smart attack of ephemeral fever several times; in one case it terminated in resolution after several weeks; in another in suppuration and evacuation by the rectum; and a third is at present under treatment.

5. It not unfrequently complicates or terminates an attack of simple hysteritis, of which several examples have come under my notice, terminating most generally in suppuration. One such case was the largest abscess of the kind I have ever seen, occupying about one-fourth of the abdomen; and in another, at present under my care, the tumour acquired the size of an orange, and after remaining stationary for some months, is now nearly resolved.

6. In certain epidemics of puerperal fever/inflammation of the uterine appendages appears as a special variety, with or without a corresponding affection of the uterus.

It is not unlikely that the disease may occur under other circumstances, but these have each and all come under my own observation, and I can therefore vouch for their accuracy.

With regard to the nature of the disease, as I have said, there is no difference of opinion, it is a phlegmonoid inflammation of these parts, but there is a distinction of some practical value as to the locality and the parts affected. In this respect all the cases I have seen may be divided into two classes:—

1. The first and largest exhibits a tumour just above the brim of the pelvis, and closely connected with it, fixed and immoveable, extending

downwards internally outside the vagina, through the sides of which it can be felt.

2. In the second class the tumour is distinct from the pelvis, rounded, and quite moveable in every direction.

In the latter cases, the inflammation appears limited to the uterine appendages—*i. e.*, the ovary, broad ligament, and Fallopian tubes. In the former, the soft parts which line the anterior and lateral wall of the pelvis are also involved in addition to the uterine appendages; these are more properly named pelvic abscesses.

I may add, that although either side indifferently may be affected, I think the left side is more frequently the seat of the inflammation.

As to the causes of the disease, it is not easy to be very precise.

1. In certain cases, to which I have alluded, the abscess is undoubtedly the result of mechanical injury, and the cause is quite intelligible.

2. In others, again, there would appear to be a sort of metastasis of inflammation from the uterus, which in these cases occurs towards the termination of the uterine affection.

3. In a third class of cases, especially when the patient is unmarried, it seems more fairly attributable to cold than to any other cause; but what may be the influence which determines the attack to this region, it is quite impossible to say. In one of the cases, to which I have alluded, all the uterine functions had been some time quiescent.

4. Lastly, in puerperal epidemics, when the uterus is involved, we could hardly expect, that its appendages would escape; and accordingly we find that they generally share in the disease, though much more remarkably; in some epidemics than in others. In another place I have given statistics of the comparative frequency.

Now, with regard to the symptoms, I must beg you to bear in mind what I have said as to the two varieties of the local affection; the one involving the soft parts lining a portion of the pelvis, and the other limited to the ovary and its appendages, strictly speaking.

The disease may, and generally does, I think, commence by a febrile attack; but this is not always the case. There may be a rigor, followed by heat, or this may be entirely absent. Sooner or later the patient complains of pain or uneasiness in the lower part of the abdomen; but the amount of suffering varies a good deal, and pretty much in accordance with the amount of fever.

If we examine the abdomen carefully, we shall either find a tumour just above Poupart's ligament, of varying size and thickness, and firmly fixed to the pelvis, or a moveable tumour, rounded, firm, and elastic, lying above the pelvis in the abdomen.

In the former class of cases, a vaginal examination adds nothing to

our information, as the tumour is out of reach ; but in the latter, we can trace it extending more or less down into the pelvis, adding a lateral thickness, extremely tender on pressure. Generally speaking, the uterus is pushed a little to one side, is not tender on pressure, but moving it gives pain. In one or two cases I have seen the uterus fixed and nearly immovable ; in one case only have I seen both sides affected. This occurred in a married woman, unconnected with delivery.

In the former class, also, in addition to the pain, tenderness, &c., the movements of the leg of that side are affected ; the patient cannot stretch it out straight without great pain, nor can she walk or stand up without bending forward.

In the latter cases the movements of the limb are quite unaffected. This distinction is, I think, of considerable practical value.

The tumour, I have said, varies in size ; it is, however, always tender on pressure, and not less so as the disease advances. When it attains a considerable size or is attended with much irritation, I have seen the bladder and rectum sympathetically affected ; the former more frequently so, giving rise to a frequent desire to evacuate their contents. In only one case have I had reason to believe that the tumour offered a mechanical impediment to the passage of the feces.

These are the principal symptoms present in a simple case of pelvic abscess ; but they, as well as the course of the disease, will vary much according to the extent of the local affection, the amount of constitutional disturbance, and, in some degree, according to the circumstance under which the attack has occurred.

1. In some cases I have seen ; the affection had a purely local character. There was the tumour tender, firm, moveable, or immovable ; but the pulse was scarcely quickened from beginning to end ; the appetite but little affected ; the bowels regular, &c. The patient was confined to the sitting or recumbent posture, and suffered pain locally, but that was all.

2. In other cases, the local suffering was very considerable and unceasing ; the pulse very quick, at least 120, with sweating at night ; utter loss of appetite ; irregularity of bowels ; no sleep, and great emaciation.

3. Lastly, the cases which occur during an epidemic of puerperal fever will present its general characters in addition to the local symptoms already mentioned.

With more or less of these symptoms, but with the local ones always, the disease runs its course not quickly ; often, on the contrary, very slowly, but with an uncertain duration in each case. I do not think I ever saw the tumour disappear or suppurate in less than a

month ; and I have known it run on to three or four, as in two cases at present under my care.

The disease may terminate either by resolution or suppuration.

1. By resolution. I have seen repeated instances of this termination, both when the tumour is free and when it is attached to the pelvis, though more frequently in the former than in the latter, and much more frequently in those cases where there is but little constitutional irritation. In such cases, the tumour may increase to a certain degree with the symptoms I have described ; it then remains pretty stationary for a time, often a considerable time, after which it gradually and slowly subsides. It is worthy of notice, that if the patient be imprudent during this process, the morbid action in the tumour may be re-excited, and the case may terminate in another manner. In one of my cases the tumour had nearly disappeared when the lady's servant became suddenly insane, and so frightened her that the tumour enlarged, and all the symptoms re-appeared. The time occupied by the process of resolution is generally considerable. I have two cases under my care at this moment illustrative of this ; in one, the tumour, which was free, has all but disappeared, after nearly five months ; and in the other, the fixed tumour has considerably diminished after three months.

2. In the majority of cases, however, the tumour suppurates, softens, generally perceptibly, and after a process of absorption of the intervening tissues, terminates by the evacuation of the purulent matter ; this formation of matter being generally, though not always, marked by the occurrence of rigors. The channel, through which this takes place, varies a good deal.

1. In some cases it has been evacuated into the peritoneum, giving rise to peritonitis ; but this must, I think, be very rare—at least, in upwards of twenty cases which have come under my notice it never occurred. I recollect a case which occurred to my friend the late Dr. Haughton, which now appears to me to have been a case of the kind. The poor woman had recovered badly from her confinement, and some time afterwards, when at the night-chair, she felt something give way, and peritonitis immediately followed.

2. Cases are on record in which the abscess opened into the bladder. If I mistake not, I saw one recently in one of the Journals ; but such cases I believe to be the most uncommon of all.

3. The tumour may soften at its lower part, and the matter may find its way through the coats of the vagina, and be discharged through that canal. I have seen several cases of this termination, the results of which have been very favourable. It has been suggested that we should puncture the tumour in this situation, when the situation of the

softening is suitable ; nor do I see any objection to the plan. I have, however, not found it necessary.

4. The most common situation, certainly, for a spontaneous opening, is into the rectum, and then the matter will be found discharged along with the stools. On this account, when the tumour is observed to become softer, and we have reason to suspect that matter is formed, the alvine evacuations should be carefully examined. Except when the matter escapes into the peritoneum, no degree of pain seems to accompany its evacuation. It often passes unobserved by the patient, and sometimes seems marked by a sense of relief in the tumour.

5. In a considerable proportion of cases, the tumour approaches the surface gradually, and engages the integuments, which become tense, fixed, and sometimes red and shining. The fluctuation can be felt, the intervening integument is absorbed, and the matter points, as it is called.

The extent of these abscesses superficially, is generally not much beyond the size of the tumour at an earlier period, but in some cases I have seen them very large ; in one case, scarcely less than one-fourth of the abdomen seemed involved. I do not think it would be wise to wait for such an extent of disease, but we ought to open it at an earlier period, and thereby save the patient much suffering.

The symptom which most surely indicates this mode of termination, or rather this locality, is the skin becoming fixed over the tumour, not rolling freely, but being adherent to it.

Diagnosis.—There can hardly be any difficulty in the diagnosis of pelvic abscesses which occur after delivery, and as part of a more general puerperal affection ; the attention being directed to the uterine system, a careful local examination will detect the tumefaction, whether it be fixed or not. If it be situated deep in the pelvis, and scarcely appearing above the brim, still the pain down the leg, and the difficulty of extending the limb, will leave but little doubt.

Perhaps an equally careful examination might be equally successful in the unimpregnated condition ; but as the disease is not generally expected under such circumstances, a less minute investigation may, and often does, lead to a false conclusion. I have myself known a case of pelvic abscess pronounced to be a fibrous tumour by very competent authority.

Now, the pathognomonic symptoms are, the pain in the tumour and down the leg, the impossibility of standing quite upright, or extending the leg completely, and the tumour detected on external and internal examination.

1. From fibrous tumours it is distinguished by its comparatively

quick growth, the amount of uneasiness, and the termination. The former increase very slowly, and insensibly give rise to few or no symptoms, and, above all, are not common in the uterine appendages.

2. In women of a certain age, the filling up more or less of the pelvic cavity, might be supposed to result from cancerous disposition; but here we have no general cancerous diathesis, the uterus is always unaffected, and the occurrence of suppuration or resolution solves the difficulty.

3. That one variety of abscess which is unconfined resembles much ordinary ovarian enlargements, at first sight, but it differs in this, at least according to my experience, that it never occurs except in connexion with childbirth or miscarriage; and, as a general rule, the growth is much more rapid in the cases under consideration.

The affection, then, may be considered as well marked, and, with care, not difficult of appreciation, but requiring special care and attention when it occurs independent of parturition.

Prognosis.—For so serious an attack, involving such important organs, and liable to such various terminations, the prognosis is very favourable. I have seen more than twenty such cases, and have never seen one in which any unpleasant result occurred. Some fatal cases are on record, but they must be very rare, and probably in consequence of secondary peritonitis.

The disease is, however, very tedious, and may reduce the patient considerably, so that there may be some risk of the incursion of other diseases, if the patient be predisposed thereto.

Treatment.—Whether the attack come on after delivery or independent of it, if we see the patient during the acute stage, it will be necessary to apply leeches over the tumour, to repeat these, if required, in numbers according to the amount of irritation and the patient's strength, and to follow them by constant poulticing.

The bowels should be kept quite free, and I have found benefit from small and repeated doses of calomel or blue pill, but not continued so long as to affect the gums.

The diet of the patient during this period must be low, and I need hardly say that she must be confined to bed.

After we have somewhat subdued the acute inflammation, we must still continue the poultices until suppuration is established; but if the pulse be quiet, we may allow a little better diet, such as chicken-broth or beef-tea.

When we are satisfied that suppuration has taken place, that matter is formed, then our anxiety is as to the place where it is to be evacuated. If by the bladder or intestine, we can do nothing but continue the

poultices ; but if, on a vaginal examination, we find the tumour soft and the intervening parietes thin, we are advised to make a puncture with a bistoury into the tumour, first ascertaining the presence of pus by an exploring needle. If we succeed, the after-treatment is simple ; so long as purulent matter escapes, the poultice may be continued, and occasional pressure made upon the tumour, so as to empty it as much as possible.

But if the tumour enlarges above Poupart's ligament, involves the skin, and becomes soft, with a sense of fluctuation, it must be opened freely in this situation : and it will save the patient some suffering if we make an incision reasonably early. Sometimes a large amount of matter is discharged with great relief, sometimes only a small quantity, but the discharge will continue so long as suppuration goes on. When it ceases, the poultices may be omitted, and some dressing substituted if the wound remains open.

When once the abscess is opened, we may allow the patient a more generous diet, with wine, &c., and in many cases bark may be given with benefit.

But if the tumour shows a disposition to resolve itself, it will be advisable by degrees to leave off the poultices, and substitute cotton wool or flannel. In some cases, this process is hastened by a small blister applied occasionally, or by painting the part with strong tincture of iodine, and I have seen great benefit and improvement result from warm hip-baths twice or thrice a week.

Such, Mr. President, is the imperfect sketch I have ventured to lay before you. No one can be more sensible than I, that it needs an apology, and I trust it will be found in the fact, that it has been written in the midst of great anxiety and hurry, without time to refer to books, and from an earnest desire to show my willingness to cooperate with you in your noble efforts to advance the science of medicine and surgery.
Dublin Med. Press.

MATERIA MEDICA.

At a recent meeting of the Medical Society of London, DR. COGSWELL read a paper on the Endosmotic Action of Medicines.

AFTER some remarks on the construction of the apparatus, the properties of different membranes to be examined, the well-known deductions of Poiseuille, in his *Memoir* in the "Comptes Rendus" of the French Academy of Sciences for 1844, the author proceeded to mention his own observations. The endosmometer of Dutrochet consisted of a glass

tube, with a somewhat bell-shaped moveable expansion called the reservoir, having a deep contraction round the middle for securing the membrane. The form of reservoir preferred by Dr. Cogswell was that of a bell-jar with a projecting rim round the larger orifice, the end of the tube and the inside of the reservoir being ground to fit one another. The reservoir had a capacity of eighteen drachms, and an internal diameter at the larger orifice of an eighth of an inch. The calibre of the tube was a fourteenth of an inch. To support the reservoir, the tube was passed through a cork adapted to a hole in a leaden plate, which rested on the edge of the outer vessel. This was a glass cylinder, of such dimensions that, on receiving the reservoir, a quantity of fluid, equal to the contents of the latter, would rise to the neck, leaving sufficient below the membrane. On consideration, the author had been led to adopt, for closing the reservoir, the cæcum of the sheep, as sold in a prepared state by the French, finding, in comparison with other membrane, that it produced the most marked results. The experiments of Poiseuille were then examined in the order observed in his Memoir :

Action of Purgatives.—Seidlitz water contained in the reservoir, being opposed to serum, ascended in the tube. Albumen was found in the reservoir, and sulphate of magnesia in the serum. Now, seidlitz water causes an unusual quantity of albumen to appear in the alvine discharges, and of sulphate of magnesia in the urine. Hence the inference is, that this class of purgatives possesses the property of determining a flow of serum towards the bowels. The author remarked, that it might reasonably be questioned whether serum was a fair representative of the living fluid in the blood-vessels, or its accumulation in the bowels the only physiological effect of the saline purgatives.

Tolerance of Medicines.—The author remarked, that endosmose was found by Poiseuille to stop at periods varying for different fluids. The outer fluid being then examined, presents a striated appearance from the incomplete diffusion of the foreign matter introduced into it. After shaking it, there is a renewed ascent of the column ; and the same thing happens repeatedly. Poiseuille employed a solution of phosphate of soda and serum. The author repeated the experiment with a solution of the salt, of density 1060, and obtained similar alternations, except as regards the elevation following the second employment of the serum. He left it to be judged, whether the facts as stated would bear out the inference, that the tolerance of medicines arises simply from the circumstance, that “the membranes of the intestinal canal, after being long in contact with the same substance, become impregnated with it, and prevent it from entering so freely into the circulation.”

Influence of Opium.—Opium and its salts check diarrhoea, and

obviate the purgative tendency of other medicines. A solution of one part of nitre to eight of water was opposed by Poiseuille to serum, and produced an elevation in the tube for three quarters of an hour. While the endosmose was proceeding vigorously, the solution was withdrawn, and replaced by a similar one, containing muriate of morphia. After this the ascent continued, but with less intensity; it proceeded for an hour, ceased an hour, and then the column began to descend. Hence, it is said, the presence of the morphia diminished the endosmose, then put a stop to it, and ended by producing exosmose, such being precisely its effects in promoting constipation of the bowels. The author, however, believes, that if the experiment had been continued without the morphia, the result would have been nearly the same, as he had found that nitre by itself has but a feeble power of endosmose. To ascertain further, whether opium exerts a peculiar influence on membranes unfavourable to endosmose, he had repeatedly opposed an aqueous solution to water, and found it produce much greater effects than some of the inorganic salts. The serum of the sheep inclosed in a reservoir, and opposed to distilled water, containing a grain to the ounce of murite of morphia, produced a vigorous endosmose for about twenty-four hours. Added to syrup in the same proportion, its effect was not appreciable. He was thence led to believe, there was not sufficient ground for characterising morphia as a substance, the presence of which puts a stop to endosmose, and renders the membrane impermeable to either fluid.

Influence of Tobacco.—The decoction of tobacco is stated, by M. Poiseuille, to penetrate the membrane, and render it unfit for endosmose. A decoction of four parts of tobacco-leaves to forty of distilled water was opposed to serum. There was a descent of the column in the tube. However, the density of the two fluids was not stated. The author having made a similar decoction, found that, after boiling above an hour, the density did not exceed 1023, when it was not likely to produce endosmose with serum having a density of probably not less than 1026. But a decoction of this strength being opposed to distilled water, produced an elevation lasting for several hours; and, further, a decoction of density 1052, opposed to serum of density 1031, produced a well-marked elevation of the column, which was found not to have stopped in twenty-one hours. The author proceeded to state, that having observed a great variety in the endosmose afforded by different solutions of the same density, he tried the following experiment:—Four endosmometics, closed with the prepared cœcum, were filled respectively with solutions of sugar, sulphate of magnesia, common salt, and nitrate of potash, and placed in distilled water. In half an hour the first fluid ascended 1-9th inch, the second 1 inch, the third 2 inches, and the fourth 1-8th of an

inch. Other membranes afforded corresponding, though less marked, results. Thus the common salt was the most energetic at first, and the nitre the least so. But again, the syrup and sulphate of magnesia continued to ascend for several hours, while the common salt stopped in four hours, and the nitre in less than two. Syrup, though it has a remarkable power of endosmose, is not a purgative, which Poiseuille accounts for by its being decomposed by the gastric juice. The author then extended the examination to classes of substances. The results obtained were arranged in a tabular form, and laid before the Society. It was remarkable that the sulphates from which experience had selected the most generally useful purgatives, had invariably a strong and continued action; while the class to which nitre belonged was comparatively feeble. Chlorate of potash, and the indide and bromide of potassium, were among the substances which had the lowest place in the tables. Gum and liquorice showed a moderate degree of energy, but it continued uninterruptedly for weeks. The author, after entering into some further details, said he mentioned these as coincidents, which might prove useful aids to investigation, but without any view to the premature construction of a theory. From what preceded, he was led to the following conclusions:

1. That the division of substances into those which are favourable to endosmose, and those which on the one hand retard and annihilate it by their influence on the membrane, and on the other render the membrane permeable, or reduce it to the condition of a filter, requires confirmation.

2. That the power of endosmose of different solutions is not regulated entirely by their density, as already observed by Dutrochet.

3. That the purgative salts generally have an energetic power of endosmose, and that this is exerted with more steadiness and uniformity by those which medical experience has selected as the most useful in ordinary circumstances.

4. That some of the other substances have marked peculiarities with regard to endosmose, which will probably assist towards explaining the mode of action on the subject.

Dr. Lankester spoke in terms of commendation of Dr. Cogswell's original and interesting paper. It might, possibly, not be considered practical; but many of the theories referred to by the author resulted in practical uses. Investigations, proving the errors of old theories, were as important as those by which new ones were established. The investigation of the physical properties of matter contributed much to our knowledge of the functions of life; and, although our knowledge of those properties of membranes, called exosmosis and endosmosis, was very imperfect, it had nevertheless opened out a field for useful inquiry. Dr.

Cogswell's experiments proved the theory explaining the action of saline purgatives, by their increasing endosmosis, to be only partly true. The action of other medicines might, perhaps, be explained by them. The great endosmotic power possessed by acetate of ammonia was very remarkable; it showed that this power was not the sole cause of purgation, and might also explain the action of that medicine. He was rather astonished at the conclusions with respect to morphia, as the experiments of Poisseuille and Bachetti showed that it lessened and even reversed the endosmotic action of fluids in which it was dissolved. This explanation of its action in diarrhoea was, consequently, rendered of no use. It must be recollected, however, when reasoning from phenomena occurring out of the body with reference to those which take place within it, that the conditions were different. In the human stomach and intestines there is a living surface covered with cells in a constant state of development, and also with mucus, by which an endosmotic action must necessarily be modified. If Dr. Cogswell's paper only led to negative results, it would still be serviceable, as indicating the necessity for caution on a subject on which there had been a great deal of positive speculation.

Dr. Hanfield Jones remarked, that certain simple homogeneous membranes possessed the power of altering the nature of fluids that passed through them, and adduced the instance of the Malpighian tufts of the kidney. This was a circumstance of some interest to consider in reference to endosmotic action. He then alluded to the case of the renal secretion, in which the blood containing the elements of the secretion on one side of the homogeneous basement membrane, and a layer of albuminous semisolid matter, in the form of epithelium, on the other; and he suggested that the climation of the secretion might be an act of endosmosis.

Dr. Snow said, that although endosmosis was a very important subject for consideration, it did not assist much the explanation of the action of medicines, even of those of the purgative class. It might sometimes aid the action of some of the saline purgatives, such as Epsom salts; but the drug would purge when repeatedly given in small doses, so diluted as to be of much less density than the serum of the blood. One important point necessary to be borne in mind with respect to endosmosis, has been mentioned by Dr. Golding Bird, viz., that acetate of potash and other salts, when prescribed as diuretics, must be diluted to such an extent as to enable them to be absorbed, otherwise they would induce endosmosis in the alimentary canal, and act as cathartics. Opium, probably, arrested purgation by lessening the peristaltic action of the intestines. The theory that it diminishes the permeability of animal membranes, would not

explain its power of arresting diarrhœa, even if it were correct; for the absorption of fluids taken into the alimentary canal would be retarded, which would exert a contrary effect. In order to fully understand the action of medicines, other laws must be considered as well as those governing endosmosis.

Mr. Chippendale said that much praise was due to Dr. Cogswell for the manner in which he had conducted his observations, and brought them before the Society. Still he thought if their object was to show that the operation of inorganic salts, as purgatives, is effected by a process of endosmosis the author had failed. For, in the first place, the fluid found in the dejections is not serum. Secondly, if this were a transudation of fluid by endosmosis, we should expect this to take place principally through the coats of the stomach, and to be gradually diminished along the alimentary canal. Yet experience taught us that the operation of purgative salts is principally in the colon. Again, if serum were to pass through the coats of the alimentary canal by endosmosis, this would be continually going on, forasmuch as the mucus which lubricates the inner surface of the tube is more dense than the serum. If a glaring instance were required to demonstrate that the action of purgatives was not one of mere endosmosis of serum, he would adduce what takes place upon the exhibition of a dose of castor oil. He thought, then, that we should look to some other kind of action of these salts, and that this must be one of the epithelial cells.—*Lancet*.

Comparative Value of Cod-liver Oil and Fish Oil mixed with Iodine.—Dr. Champouillon, professor at the Army Medical School of Val de Grâce, has just laid before the Academy of Medicine the result of the comparative experiments he has made upon phthisical patients with cod-liver oil, and simple fish oil mixed with iodine. Dr. Champouillon gave the cod-liver oil to 120 patients laboring under phthisis. Fifty-one were in the first stage; and of these, twenty-four were benefited, and none died. Thirty-seven were in the second stage; of these, nine recovered, and three died. Fourteen were in the third stage; and here six recoveries and four deaths took place. The author gave the iodated oil to seventy-five patients in different stages of phthisis: no improvement took place in any case, and in several, it was noticed that the remedy did harm.—*Lancet*.

Iodine rendered soluble by Syrup of Orange-peel and Tannin.—M. DEBAUQUE mentions, in the *Journal de Pharmacie* of Antwerp, that he has found means of keeping iodine in a state of solution, when

added to mixtures in the form of tincture. The author uses for that purpose syrup of orange-peel, which answers the purpose perfectly. It was suspected that *tannin* was mainly instrumental in this result; and this was rendered evident by putting a few grains of tannin into a quantity of water to which tincture of iodine has been added, and in which the iodine had of course been precipitated. The addition of the tannin caused the iodine to be immediately re-dissolved. Thus will the syrup of orange-peel be advantageously added to mixtures containing tincture of iodine, and tannin to injections composed of water and the same tincture.—*Lancet*. [We have tried the experiment, and find the statements of M. Debauque to be perfectly correct.—*Eds.*]

Use of Tannate of Alumina in Gonorrhœa.—Mr. Harrison had found the local exhibition of the remedy in question followed by the most satisfactory results. The method of using, was to throw into the passage an injection containing from 2 to 10 grains of the salt dissolved in distilled water, the strength of the solution being in a great measure determined by the amount of smarting pain produced. The most advisable method was just to keep the strength of the injection up to the smarting point. He thought it injurious to produce more than a gentle scalding.

Mr. Harrison did not anticipate, of course, equal success in every case, but he generally found the disordered condition of the urethral mucous membrane removed in the course of one or two weeks, in the ordinary run of cases.

On his recommendation, some of his professional friends had employed it in their practice, and from their reports he was supported in his high opinion of the remedial properties of the tannate of alumina. The combination of alumina and tannic acid, produced by Mr. Rogers Harrison, was of a dirty yellowish colour, and in crystals about the size of those of coarse sugar, and readily soluble in hot water.—*Lon. Med. Gaz.*

Canada Medical Journal.

MONTREAL: APRIL, 1852.

OUR PROSPECTS.

WE are happy to be able to announce to our readers, that, from the patronage already extended to this Journal, there is now no doubt of its success; and we beg again to remind them that they will materially further its career, by promptly remitting their subscriptions for the ensuing year. We have been promised support in the literary department, from almost every contributor to our predecessor; and we expect much assistance, also, from our brethren in the neighbouring cities and throughout the Province generally. Practitioners, in the country districts, would much oblige us by transmitting the particulars of any remarkable cases, the details of coroners' inquests, or observations upon the endemic diseases of the localities in which they reside, for, on this latter subject, accurate information is much wanted, and would be deemed of great value and interest. We have also received from our Canadian confrères, encouragement equal to our anticipations; and the pages of this number amply prove, that when we invited their co-operation, we were not wrong in expecting a ready response to our request. We have been promised, likewise, able and efficient assistance from many of the highly educated and accomplished physicians in the junior ranks of the profession. To these we would say, *advance the science of your profession and you advance yourselves*; look to no one for assistance, but depend upon the abilities which have been bestowed upon you, and regard them as *lent talents*, for the right and proper employment of which, you are accountable. Many of those whom you regard as capable of advancing *you*, are not too successful in retaining *their own* position; and if they discountenance your efforts to attain an elevated standing in your profession, rest assured, they tremble for the maintenance of their own. Imitate the bright example of the young physicians of Europe, from whom most of the great improvements in Pathology, Physiology, Diagnosis, and in the collateral branches of medicine, have

emanated. Fields for observation, equally prolific, are open to you in this country, and reputation is more likely to meet quickly with its reward *here*, than in Europe. It is to you, the profession in this country looks for aid, in placing it on a footing of equal respectability with that of Europe, and this object can only be attained by the cultivation of sound medical science, and the dissemination of enlightened principles of practice amongst us. Be not diverted, then, from this career of usefulness, by the sneers of the jealous, the dissuasions of the interested and slothful, or the taunts or threats of the envious; rest confident that those who cannot advance themselves, can do little to retard you; but persevere in accurate observation and careful reflection, and let our pages bear testimony to the fact, that in Canada, there are young and enthusiastic members in the profession, capable of comparison with those of their own standing in any part of the world.

We invite those engaged in medical instruction to follow the example of Dr. Arnoldi, and send us extracts from their lectures, embodying their own peculiar views of the nature and management of the diseases upon which they treat. Much valuable matter might thus be collected, and be of use to suffering humanity, and for the advancement of medical science. To this latter class, we can promise an extended circulation of their doctrines. Many of the articles printed in our predecessor were extensively copied, not only into the British and American Journals, but also into those of the Continent of Europe. May not we expect similar notice to be taken of the pages of our Journal, in which will be recorded facts and observations from the pens of those who supported the British American Journal of Medicine? This is the answer we would give to those, if any there be, who might urge as an objection to publishing in this Journal, the limited extent of its circulation, as compared with those of the mother country. Let them also recollect, that it is now taken by nearly every medical man in Upper and Lower Canada, and, consequently, obtains for its writers a more extended reputation *here*, than can be furnished by any other periodical.

We should be guilty of ingratitude did we not acknowledge the promptness with which our contributors have laid their pens at our service, and we tender them our sincere thanks for the efforts they have made on our behalf. But there is one amongst them to whom we are indebted in an especial degree, and without whose assistance we could not have published our first number—we allude to our friend, Dr. Hall. No sooner was the project of a new Journal definitely decided upon, than he cheerfully furnished us with the papers he had in hand, and also the various Medical Journals of England and America; and with that spirit of liberality and true professional zeal, which have so much characterized

his management of the late Journal, he at once offered us his able assistance as a contributor to our pages. To Dr. Hall, then, not we alone, but the profession generally, are in a great degree indebted for the commencement of what, we trust, (with their kind patronage) will not soon have a termination—THE CANADA MEDICAL JOURNAL..

Statistical Chart of Canada.—We have received a copy of this really useful Publication, from the Compiler, Mr. Robert W. S. MacKay, and find it embraces a mass of most valuable information relative to the Province. It contains, along with the other matter, the most complete list of the regular medical practitioners of Canada, with their Post-Office addresses, that we have yet seen, and to the members of the profession, who require such information, we can most safely recommend it as being reliable, having had occasion to make frequent reference to it. It is published at 3s. per copy for the sheet, and where two copies are ordered to one address per mail, they will be forwarded for 5s.

Parties ordering copies will address Mr. John Lovell, Printer and Publisher, Montreal.

His Excellency the Governor General has been pleased to appoint George Buckland, Esquire, to be Professor of Agriculture, in the University of Toronto.—*Canada Gazette*, Jan. 31, 1852.

His Excellency the Governor General has been pleased to grant a License to William Porter, of Leeds, Gentleman, to practise Physic, Surgery and Midwifery in that part of the Province called Upper Canada.—*Ib.*, Jan. 31, 1852.

His Excellency the Governor General has been pleased to appoint Dr. William Bell, to be an Associate Coroner in and for the United Counties of Wellington, Waterloo, and Grey.—*Ib.*, Feb. 14, 1852.

His Excellency the Governor General has been pleased to grant Licenses to practise Physic, Surgery, and Midwifery in that part of the Province called Upper Canada, to Robert Henry Swyny, M. D., of Adjala, Esquire, and Hickman Rose Daniell, of Garrafraxa, Esquire, Surgeon.—Feb. 28, 1852.

Obituary,—At the Hôtel Dieu in this city on the 5th ult., Dr. J. B. Lebourdais, aged 67 years.

Errata in our last.—Page 15, line 35, for Jescay, read Pescay, and line 36, for He, read Hennen.

An unintentional mistake having occurred in the notice to contributors in the last number of the Journal, the Editors wish to inform their readers they have decided upon publishing articles in the French Language, and are happy to have it in their power to announce that they have been kindly promised the able assistance of their talented friend, Dr. Peltier, one of the Professors in the Montreal School of Medicine. The Editors look forward therefore, with confidence to the support they will receive from their Canadian Confrères, and trust their pages will always contain at least as many able communications from them, as the present number does.

We observe that the Lady Directresses of the University Lying-in Hospital have presented a case containing a dozen handsome silver spoons to Mrs. Buchanan on her retiring from the situation of Matron of that very useful Institution.

Notice.—Some copies of the first number of this Journal having been returned without the names of the parties who refused to receive them, this number must of course be forwarded to them, which they are requested to return, with their names written *on the envelope*.

Several subscriptions have already been received, the names will be published in the ensuing number.

Communications have been received from Drs. Dame, River du Loup ; Verity, Hemmingford ; Bell, Wilson ; Von Iffland, Beauport ; Alcorn, Lennoxville ; Codd, Renfrew ; J. D. Macdonald, Perth ; McGee, Beverley ; and Morton, Farmersville.

We would beg to call the attention of our readers to the certificate from Dr. Nelson in favour of the Plantagenet Water, which appears on the cover.

Books Received.—Ranking's Half Yearly Digest, from B. Dawson, Montreal. Nelson's "Northern Lancet" for March, 1852. Boston Medical Journal, 2 Nos. New York Journal of Medicine for March, 1852.

All communications and letters intended for the Editors of the Journal *must be pre-paid, otherwise they will not be taken out of the Post Office.*

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.448
1 Centimètre.	4½ Lines.	0	0	4.438
1 Décimètre.	3 Inches 8 Lines.	0	8	8.880
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Old Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		399
The English Foot.	30 Centimètres.	304		794
The Yard. (3 Feet.)	91 Centimètres.	914		388

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	1 Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	8	2	10.80
1 Kilogramme.	3 Pounds.	2	0	5	85.15
Old Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 Centigrammes.	0 Grammes			033
1 Gros.	4 Grammes.	8			89
1 Ounce.	30 Grammes.	30			59
1 Pound.	500 Grammes.	489			50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 39.370788 inches. 3.280899 feet. 1.093633 yard.
Décimètre, 1-10th of a mètre	{ 3.937079 inches.
Centimètre, 1-100th of a mètre	{ 0.393708 inch.
Millimètre, 1-1000th of a mètre	{ 0.03937 inch.
Measures of Weight.	
Kilogramme, weight of one cubic decimètre of water of the temperature of 39° 19' Fahr.	{ 2.6803 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5438 grains troy. 0.9719 scruples
Décigramme, 1-10,000th of a kilogramme	{ 0.082 ounce troy.
Centigramme, 1-100,000th	{ 1.5438 grain troy. 0.1543 grain troy.

CANADA MEDICAL JOURNAL.

VOL. I.

MONTREAL: MAY, 1852.

No. 3.

ORIGINAL COMMUNICATIONS.

ART. XII.—*On the use of Cod-Liver Oil Externally.* By. A. H. DAVID, M. D., Physician to St. Patrick's Hospital, Lecturer on Practice of Physic, St. Lawrence School of Medicine, Montreal,—Member of the Provincial Board of Examiners, &c.

“Few remedies have of late been more extolled than cod-liver oil, and few, we may add, have caused so little disappointment as this valuable therapeutic agent. When it is considered how extensively it is used, it will be considered that it must be very effectual, since it is keeping its ground in a very remarkable manner, though employed in thousands of instances. According to all appearances, cod-liver oil is not one of those ephemeral remedies destined to shed a doubtful light for a very short time and be consigned to oblivion, but it is very likely to take rank in our pharmacopœia on the same footing as Quinine, Mercury, and Iodine.”—*London Lancet.*

The above paragraph is used in allusion to the efficacy of cod-liver, oil in Phthisis, but the remarks I now intend offering are with the view of recommending it as a *local application* in various cutaneous affections, in which, after a trial of it in such cases for upwards of two years, I have found it to act almost specifically.

The first cases which I shall mention are those which are always of a very obstinate character, and which, before I used cod-liver as an application to them, I have often had to treat for months with every remedy that had been recommended and without success. I allude to Ringworm of the scalp, and having now used it in more than twenty cases, I can safely recommend it as a certain cure. It acts speedily, and some cases, that had resisted for weeks all other methods of treatment, were quite cured in four or five days. I have also used it in

Hospital practice, in cases of TineaCapitis, with equally successful results, and much to the surprise of many intelligent students, who closely watched the cases and witnessed with surprise the rapidly beneficial effects of it.

I have lately had an opportunity of trying it in a case of Psoriasis Inveterata, a disease which is allowed by all writers to be a very troublesome and intractable one, and the most obstinate of all the forms of scaly tetter. The patient had been suffering from it over three years, and had been under the care of several practitioners during that time, without deriving any benefit from the treatment employed by them. The greater part of his body was covered with the disease, as was also his neck, arms, and thighs. I immediately ordered him to apply cod-liver oil to the parts affected, and to keep them constantly covered with it, and in less than three weeks he was very much improved, most of the scabs had become dry and were falling off, and the skin underneath them assuming its natural colour. This man, being an in-door patient of the St. Patrick's Hospital, was repeatedly seen by many Medical friends, both civil and military, and was discharged completely cured in seven weeks.

In consequence of the success attending my use of it in these and various other cases of "Skin diseases," my friend, Dr. Arnoldi, was induced to try its effects in cases of extensive burns, and in these the cures might be said to be truly miraculous. In one, a man, who, when drunk, actually *roasted the whole of his back*, the constant application of cod-liver oil to it, produced cicatrisation in a very short time, without suppuration or any contraction; this case was also seen by several Medical men, as the patient was an inmate of the Montreal General Hospital, and they all agreed that it was a surprising case. Dr. A. has also frequently used it with equally good effects in cases of frost bites, and I may mention that I have used it in the same way in two cases of mild Erysipelas with similar beneficial results.

These remarks are not offered to the profession under the impression that there is anything particularly new in using cod-liver oil as an application in cutaneous affections, as I believe it has been occasionally used in this way for years. My only object is to call the attention of the profession to the very beneficial effects derived from the local application of so simple a means. I shall not attempt to explain the theory of its action further than by saying it presents all the properties of a "drying oil," and in some cases has produced considerable *burning heat* and intense pain in the parts to which it has been applied, and in one, that of Acne Rosacea, I was obliged to discontinue its use on the fourth day, from this very circumstance. And I entirely agree with Mr. Donovan's remarks as published in Rankin's Abstract, that "it is a most wonderful addition

to our materia medica, that it produces effects of which no other known remedy is capable, and that it is well worthy the attention of the Medical Profession.”

ART. XIII.—*Fatal Case of Poisoning by Sulphuric Acid, with Observations*, by JAMES SEWELL, M. D., Physician to the Hotel Dieu, Quebec.

A SAD case, possessing more than usual interest, both from the poison selected, and the quantity swallowed, having recently occurred in my practice, I think it my duty to submit its history to the Profession.

Mrs. E., aged 23, the mother of two children, had about three weeks since suffered a miscarriage, which left her feeble and nervous. In this state, more easily acted upon by depressing causes, she heard a sermon, the effects of which on her mind (according to her own statement to me) she could not throw off; she fancied herself without the pale of salvation—her soul condemned and lost—in fact, she became insane with this predominant idea. In this state she remained, with some shades of variation, until Monday the 16th of February; her husband had been repeatedly warned that she would probably attempt to commit suicide, and he fortunately arrived in time to prevent her committing it by suspension on the Friday previous to the fatal accomplishment of her purpose. Her husband's business led him to the employment of Tincture of Bromine, Iodine, and other poisonous materials; these he had carefully disposed of beyond her reach. A day or two before the sad affair, he bought at a Druggist's one pound by weight of *concentrated sulphuric acid*, which shews about 5 fluid drachms to the oz.; he poured the whole of this into two large tumblers, dividing the quantity equally to form what these Artists call “a battery,” by which they galvanize the silvered plates, previous to submitting them to the vapour of iodine in the production of daguerreotype likenesses; he had placed, as I have said, the Bromine and Iodine, &c., under lock, but, never suspecting the probability of her using this powerful acid for the purpose of self-destruction, he took no precaution with it. She was absent from her usual sitting apartment about 3 o'clock, P. M., of the 16th February, for somewhat less than two minutes, but she had time to effect her purpose, as she told him on returning to the room; on instant examination he found that she had emptied one of the tumblers of its contents, except about $\frac{1}{2}$ a fluid oz., and the already excoriated state of her mouth and chin fearfully corroborated her story.

Assistance was quickly sought, and, on my arrival, finding that the stomach-pump had been imperfectly used, I re-introduced it. At this time

ORIGINAL COMMUNICATIONS.

As had elapsed since the acid had been swallowed. I found her perfectly collapsed, cold skin, no pulse at the wrists, the heart feeble and indistinct. The first effect of the acid was to prostrate all the powers of life nearly to extinction. When the acid was first injected into the stomach and quickly withdrawn, the appearance presented, destroyed all hope; it was dark, grumous-looking blood, mixed with a shred like filamentous substance. Oil, chalk, and carbonate of magnesia were freely used, with a view to neutralize the acid or blunt its action. Some re-action came on in about an hour, when her sufferings became dreadful to witness; she could scarcely be held in bed, her mind had cleared at once, and "she wondered what could have made her do it," and then "she was burning alive," were expressions incessantly uttered; she could, and did, swallow every thing that was offered to her, till delirium and coma closed the scene.

The body was carefully examined the next day, about 20 hours after death, and it is quite a hopeless task to give an adequate idea, by any description, of what we saw. The whole of the forepart of the stomach, that is, its greater curvature was destroyed, and fluid of the same appearance as that drawn up by the first action of the stomach pump, was on the surface of the intestines, and welled up from amongst their convolutions. The omentum was to a great extent in shreds, the back part of the stomach was likewise injured and look charred, but in a less degree, the food, (and she had dined heartily at noon,) was pushed toward, and lay at and near, the Pylorus. I apprehend, that the mass of food prevented the immediate contact of the acid, and thus accounted for its different state of disorganization; the great arch of the colon, where in contact with the stomach and omentum, was in some trifling degree affected. *The stomach was literally dissolved in Sulphuric Acid*; one or two drops from the scalpel fell upon some linen, and a hole, through which the finger could be thrust, was quickly made, showing how active this powerful acid still was. Doubtless the acid had continued to destroy the texture of all parts it came in contact with. Even after death, but much of the disorganization, that we witnessed, had been effected by this destructive agent in the three hours that intervened between the time of her swallowing it, 3 P. M., and 6 P. M. the hour she died.

It is pretty evident, that no plan of treatment could have been adopted in this sad case with any chance of success, either with a view to withdraw the acid before it had time to work irreparable injury, or to neutralize it. There was a well marked excoriation at each angle of the mouth and beneath the chin, much more apparent after death. The inside of the mouth and lips were of a dead white, as if burnt by a hot iron.

It would have been interesting to have examined the fauces œsophagus, &c., but it could not be done. I am indebted to Drs. Boswell and Painchaud for their assistance upon this sad occasion.

ART. XIV.—*Observations sur un cas d'infanticide*, par le Docteur BOYER, Professeur de Médecine Légale dans l'Ecole de Médecine de Montréal, Médecin de l'Hôtel-Dieu, etc., devant la cour du Coroner.

Le 20 mars, je me rendis, à l'invitation de M. le Coroner Coursol pour assister à une enquête, au village de Varennes, qui devait se faire sur le corps d'un enfant nouveau-né.—C.. V., sauvagesse de naissance et veuve depuis deux ans était accouchée le lundi précédent, le 15 mars, d'un enfant mâle.

Voici les renseignements fournis par les différents témoins :—Mad. L. chez qui elle demeurait, dépose, que dans l'après-midi de lundi, étant allée chez sa voisine, sa petite fille âgée de 10 ans vint la chercher peu de temps après et lui dit, d'un air effrayé, " venez, vite ma tante Catherine se plaint beaucoup et j'ai entendu les cris d'un enfant dans sa chambre" aussitôt elle s'y rendit avec la voisine, elle trouva la femme debout auprès de son lit, et vit des traces de sang sur le plancher. Lui ayant demandé où était son enfant, elle répondit qu'il était mort en tombant par terre et qu'elle l'avait mis sous la paille. La voisine étant allée au lieu indiqué trouva en effet l'enfant mort, avec le placenta et le cordon ombilical non séparés. Elle dit avoir coupé, elle-même, le cordon avec des ciseaux.

Après l'autopsie les médecins donnèrent leur témoignage verbal et rédigèrent ensuite le rapport suivant à la demande du Coroner :—

Nous, soussignés, Médecins, résidants au village de Varennes, District de Montréal, sur la réquisition de Charles Coursol, Ecuier, Coroner, nous sommes transportés, aujourd'hui le 20 mars 1852, à la salle publique de la maison de la Fabrique, dans le dit Village, pour examiner le corps d'un enfant, né il y a cinq jours, de Catherine Vassal, veuve de Xavier Fougère dit Champagne.

Après avoir prêté serment entre les mains du susdit Coroner, nous avons, conjointement avec le Docteur Wilbrenner, Ecuier, M. D., demeurant au Village de Boucherville et en présence du Docteur Boyer, Ecuier M. D., de Montréal, procédé à l'examen du corps du dit enfant.

Il nous a été présenté dans un bière et enveloppé de linges.

Il est exempt de putréfaction et de fétidité. La peau est en plusieurs endroits congelée par le froid.

Il est du sexe masculin, a des cheveux noirs et abondants, sa longueur du sommet de la tête aux talons, est de 19 pouces. Les ongles sont

bien formés et dépassent l'extrémité des doigts. Il est gros, doué d'embonpoint et bien conformé.

Il est encore enduit de la matière grasse onctueuse et blanchâtre que presque tous les enfants apportent en naissant, et d'un peu de meconium aux membres inférieurs et au ventre.

Le cordon ombilical, coupé par un instrument tranchant, a la longueur de quatre pouces environ de l'ombilique, n'est pas ligaturé.

Il n'y a sur ce cadavre aucune marque de violence extérieure. La surface en est de couleur rose plus ou moins pale, excepté à l'occiput, à la nuque, aux dos, aux lombes et aux fesses, où nous voyons des ecchymoses ou plaques de couleur rouge violacé, irrégulières, entre-croisées çà et là de quelques lignes blanchâtres ; mais à l'exception de celle de la région occipitale, ces ecchymoses sont superficielles et ne s'étendent pas au delà du tissu cellulaire : ce dont nous nous sommes assurés par la dissection et ce qui nous a convaincu qu'elles ne sont dues qu'à la stase du sang, dans les parties désignées, sur lesquelles le cadavre est resté couché immédiatement après la mort.

Les ongles, la place interne des mains et la bouche sont de couleur bleu foncé.

La dissection des téguments du crâne fait connaître, sur le parietal droit et à la fontanelle postérieure, un épanchement de sang fluide et noir d'environ un pouce et demi de surface. Le cuir chevelu est infiltré du même liquide, surtout à sa face interne, dans la même étendue et à la partie postérieure de la tête.

A l'intérieur du crâne, dans les membranes du cerveau, il y a épanchement de même sang dans les parties correspondantes à la même fontanelle et à la région occipitale.

Les os du crâne ne sont pas fracturés. Les vaisseaux à la surface du cerveau paraissent fortement injectés d'un sang noir.

Les poumons, le cœur et le thymus, plongés en masse dans l'eau, surnagent. Les poumons sont d'un rouge foncé sans aucune trace de putréfaction, leurs vaisseaux sanguins ont le même aspect que ceux du cerveau. Des fragments de ces organes fortement pressés entre les doigts surnagent toujours.

La cavité droite du cœur (ventricule droit) contient du sang noir et liquide, la gauche est vide.

Le foie est gorgé de sang noir et liquide.

Le gros intestin est distendu par le méconium.

La vessie ne contient pas d'urine

Conclusion.

De ce qui précède nous concluons.

1^o. L'enfant que nous avons examiné est du sexe masculin.

2 ° . Il était à terme.

3 ° . Il a respiré, il a vécu.

4 ° . Il était viable.

5 ° . La coloration du tronc, de la bouche et des mains, l'état de congestion sanguine des viscères, notamment des poumons, du cerveau et du foie, sont autant de signes qui établissent que la mort a été le résultat de l'asphyxie par suffocation.

6 ° . La présence d'épanchements de sang sous les téguments du crâne et dans les membranes du cerveau, prouve que l'enfant était vivant quand il a reçu les contusions qui ont produit ces épanchements.

7 ° . Ces épanchements ne sont pas assez considérables pour produire une mort instantanée.

En foi de quoi nous avons dressé le présent rapport que nous certifions en tout conforme à la vérité et aux principes de l'art.

Fait à Varennes, le 20 de mars 1852.

R. WILBRENNER M. D.

CHS. FRs. PAINCHAUD Médecin,

Après l'audition des témoins le coroner récapitula les témoignages et expliqua habilement les devoirs du jury. Il termina en disant qu'il y avait deux chefs d'accusation, l'un pour meurtre et l'autre pour recèlement de naissance. Après délibération le jury rendit le verdict suivant : *mort par accident*.

Le 23 mars, le coroner remit les dépositions des témoins à l'officier de la couronne, pendant le terme de la Cour criminelle, afin qu'elles fussent soumises au grand jury. L'accusation ne fut pas approuvée par ce corps et en conséquence il ne fut pas trouvé "*Bill*" contre Cath. V.

ART. XV.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University of M'Gill College, &c.

ONE of the strangest of all moral phenomena in the present day is, perhaps, presented in the comparatively trifling, nay, almost imperceptible, effects which the experience and teachings of ages have had in the legislative enactments and individual efforts of modern nations with reference to the all-important subject of health. Strange also is the fact, that although the principle of self-preservation, even in itself, should naturally incite communities, as well as individuals, to endeavour to profit by, and to act upon, teachings, always plentifully attainable, if duly sought, yet, by a most culpable negligence and apathy, more especially visible in large cities, have miasma and plague, malaria and consumption, been

permitted to generate, and death to run riot, amongst those, who, but for the carelessness and cupidity of their fellow-men, might have attained an age almost reaching that of the patriarchs of old. Such procedure must not only be highly condemnable in the eyes of man, but necessarily sinful in the sight of God. For, as is his wont, the all-merciful and all-wise Creator has not left us without guidance in a matter which, next to the due care and health of our souls, it is most necessary for us to know. Thus, it never has been, as indeed it never can be, questioned, that the most ancient and, at the same time, most sacred treatises on the subject of a national and individual hygiene—the legislation of Moses son of Amram—contains the wisest and most valuable principles, recommendations, and enactments on the subject of health, which, though thousands of years have elapsed since their enunciation, do yet remain like “all which proceedeth out of the mouth of the Eternal,” just as valuable and just as wise as when first revealed for the edification of the Hebrew people, and are, therefore, now, as then, fully worthy our most attentive and reverent consideration.

Among the Hebrews, who, under God, have preserved these enactments to the present day, it has ever been a golden maxim, “there are no riches can compare with health;”^{*} and this principle is equally developed in their Post Biblical, as well as in their Biblical, jurisprudence, as it will be our endeavour to show in the following pages. The maxim appears also to have been in no small degree appreciated and acted upon by the ancient heathen nations, for, as we all know, their legislators not only passed laws calculated to secure an athletic, healthy race of men, who would best serve their respective states, but also for the healthfulness of these states themselves; and their orators and poets, as is also well-known, frequently called the attention of the people to the subject, in order that, being reminded in the words of Virgil,

Noctes atque dies patet atri janua Ditis,
Sed revocare gradum, superasque evadere ad auras,
Hoc opus, hic labor est.†

they might thereby accord an universal and cheerful obedience to the laws. And even with respect to Christian nations, it is a question which, we think, cannot be so immediately decided in the affirmative, whether, in the first century of Christianity, they were less appreciative than their descendants are, in the nineteenth, of the truth conveyed in the saying of the old English moralists, that “there is but one way of coming into

^{*} אין עשר כבודות • מבחר חזונים •

† *Æneid* lib. vi. (127) Thus rendered by Davidson, “Grim Pluto’s gate stands open night and day; but to re-ascend from thence to the upper regions, this is a work, this a task indeed.”

the world, but a thousand to go out of it," or whether they could parallel the atrocities which are daily revealed to us with reference to the impurity and adulteration of food, the state of city grave-yards, the noxious manufacturing processes carried on in densely populated neighbourhoods, and a thousand other evils calculated to undermine the public health. These, however, are questions we do not attempt to decide, but, leaving them for the consideration of others more competent to do so, we proceed to examine that branch of the general topic which we have selected as our own, and will endeavour to show what are the ideas and practice of that people to whom a code of sanatory laws was first revealed.

But it is proper to premise, that the Sanatory Institutions of the Hebrews are not to be looked for in the Bible only, though the grand principles, upon which they are based, have undoubtedly been borrowed by them from, and credited by them to, the sacred volume. It is to that vast repertory of the national traditions, that well-known, but little understood, compilation, the Talmud, and to their later casuists, that we must turn, would we find and correctly estimate the multifarious, important, and highly interesting sanatory constitutions of a people who honoured these constitutions with a most scrupulous observance, not merely because they regarded them as mere matters of expediency, utility, or profit, but as the strict, unavoidable, and uncompromising requirements of their heaven-born religion. The pains and penalties following dereliction or neglect—in some cases amounting even to excoision—also tended, both in Biblical and Post Biblical times, to secure from the Hebrews a scrupulous observance of their sanatory laws. We are well aware, that some few, writing in an unfriendly spirit of the book in which they are contained, have condemned them as overloading man with useless ceremonies, which enter into every hour of his existence and make him the mere creature of ablutions and precautions. But it is very evident, that this objection must be pronounced quite futile, until it can be shown that a careful and strict attention to the promotion of health is at all condemnable, pernicious or unwise. By another class a further objection has been made to them, that, although their tendency may be good, yet is the minuteness of detail employed in the books of Hebrew jurisprudence highly objectionable, and not to be tolerated in the present refined state of society. But here it is also evident, that such an objection is utterly groundless, and could only be adduced but for a sinister purpose. For if they become objectionable and intolerable on this account, then equally objectionable and intolerable must we pronounce every medical book, tract, or treatise, from the days of Galen downwards, since it needs no very extensive knowledge of both classes of authors to

decide that the former are clearly and indisputably more measured in their *modus scribendi* than the latter, notwithstanding which but few would recommend the suppression of valuable medical treatises on this account. The truth is, that, equally with any modern casuistic or scientific writers, the Jewish Doctors or Rabbis wrote for intelligent, considerate, truth-seeking men. They wrote neither for children, for fools, nor for blind zealots. And when they entered into details designed to promote the bodily, and consequently the mental, health of their people, they knew that they addressed men who would only consider themselves "a wise and discerning people" accordingly as they respected the "statutes and judgments so righteous," upon which their teachers amplified—men, who, whatever their faults otherwise, could yet duly appreciate recommendations to purity, chastity, and sobriety, and could not only ostensibly, but actually and in reality, act up to them,—men, whose cheeks would not mantle with the deceitful hues of a false modesty when particularization of wholesome, sanatory and moral laws were addressed to them in public, while, in private, they would, with brazen brow and unblushing face, outrage every one of these laws, and yet loudly proclaim a refined state of society, as, perhaps, is but too much the case in our day. And that the Hebrew Sanatory Institutions, despite their minuteness of detail, have proved to the nation neither hurtful to body nor baneful to mind, is, we think, evident from various considerations. In the first place, although there now flows in the veins of the Hebrews the blood of the most ancient nation remaining on earth—the same blood which once animated Abraham, Moses, David, and Isaiah,—although the stake has destroyed of them its thousands, and the sword its tens of thousands—although monarchs and legislators, from the days of Pharaoh downwards, have passed enactments for their extermination, forbidding, as is the case even in the present day, their obedience to one of the first laws of nature*—although found in every country and clime, amidst the snows and ice of a northern, and the burning sun of a southern, latitude,—and although, at all periods of their history, subject to a thousand adverse and destructive influences, yet do they remain a wondrous living problem, the same *undeteriorated*, indestructible race, with the same characteristics everywhere traceable among them, with an eye not less bright than when it was called to witness the lightnings of Sinai's mount, and with a step not less elastic than when it repaired to the Holy Temple which God vouchsafed to make the place of His especial residence; in short, with the same favourable, energetic, and high organization among the men, and with the same instances of rare attractive beauty among the

* In many parts of northern Europe the laws of the State permit only a certain number of Jews to marry.

women. Nor do we find them, in consequence of their sanatory regulations, more subject to diseases, or obnoxious to epidemics of all descriptions, but the contrary ; for it is undeniable that the mass of the nation, who are duly observant of their dietary laws, are remarkably free from certain classes of diseases, particularly those of the skin and the hypochondriac regions ; while, ever since attention has been given to the statistics of epidemics, both in Europe and America, it has been announced as an extraordinary fact, especially during the ravages of Asiatic cholera, that proportionably, the Jewish community have remained in a remarkable degree unscathed under these awful visitations.*

These laws, too, have evidently not unfavourably affected their moral organization, for, let us search the calendar of crime of every country, and we shall be led to the conclusion that these same dietary and sanatory laws have had the effect of exempting them in a remarkable degree from that, to speak technically, plus-animalism or preponderance of the animal organs and instincts, which has led in others to the commission of the most awful crimes. In vain we seek their names in the long list of those convicted of inveterate drunkenness, of midnight plundering and assassination, of fœticide, infanticide, of murder, and of other revolting and abominable crimes, which one dares not even think of or allude to. Of the correctness of this assertion it is easy to adduce evidence, but upon those who may feel disposed to doubt it, rests, as we imagine, the burden of proof to the contrary. It would appear also that these laws have not had the effect of investing them with an inferior mental organization, for the attentive reader of history and observer of events, cannot but remain astonished at the immense, wondrous, influence they have exercised, and do even yet exercise upon the destinies of the world,†—in the present day,

* During the fatal prevalence of Cholera in London, in 1849, the editor of a leading paper thus writes : “ It is a singular circumstance, that throughout the late awful visitation, so few, if any Jews, died of the Cholera in London, *although the majority of them reside in districts where it committed great ravages.*” See also Thanksgiving Sermon of the Rev. D. A. De Sola, of London, for 15th November, 1849. We believe that the authenticated cases did not exceed two, and one of these, personally known to us, was a gentleman of opulent circumstances, at Brighton, where he had gone for the advantages of sea-air.

† Although we might adduce abundant proof of the correctness of this statement also, yet do we attempt to satisfy our readers and ourself by simply quoting from one of the productions of the present Chancellor of England. Mr. D’Israeli, in his *Coningsby*, thus writes : “ The Saracen kingdoms were established. That fair and unrivalled civilization arose which preserved for Europe arts and letters, when Christendom was plunged in darkness. * * * * * During these halcyon centuries, it is difficult to distinguish the follower of Moses from the votary of Mahomet. Both alike of equally built palaces, gardens, and fountains ; filled equally the highest offices of the State ; contested in an extensive and enlightened commerce ; and rivalled each other in renowned universities.” Sidonia, as a type, “ was lord and master of the money market of the world, and of course virtually lord and master of everything else, and monarchs and ministers of all countries courted his advice, and were guided by his suggestions.” * * * * * “ He had visited and examined the Hebrew communities of the world, * * * * * and perceived

more especially in the commercial and political world, though their influence and importance, religiously, as the ancient, preserved, and living witnesses of the Sinaic revelation, is by no means to be underrated. On this subject, however, it is not our province to dwell here, but we hasten to assure our readers that, in all we have said, we have not sought to assert that it is to their Sanatory Institution solely, that the Hebrews owe their preservation as a people. Far from this. In common with all believers in the Sacred volume, whether Christians or Jews, we witness the existence and preservation of Abraham's sons, and exclaim "the hand of the Eternal hath done this thing." Yes, we behold in it but the fulfilment of the predictions of their own lawgiver and prophets, the fulfilment of God's threats and promises to them. But in common with those believers, we are also impressed with the conviction that God frequently permits us to perceive and appreciate the means whereby He works out the end He proposes:—that He as frequently prefers simple and natural means for the accomplishment of His behests, and that it is therefore quite permissible, after due inquiry to maintain, that the Sanatory Institutions of the Hebrews, have, under God, tended in a great measure to secure the present preserved and undeteriorated existence of the nation. To what extent they have done so it will of course be for the reader hereafter to decide. Believing, as we have already affirmed, that it is to a very great and important extent, we think no fur-

that the intellectual development was unimpaired." * * * * * "And at this moment, in spite of centuries, and tens of centuries of degradation, the Jewish mind exercises a vast influence on the affairs of Europe. I speak not of their laws which you still obey; of the literature with which your minds are saturated; but of the living Hebrew intellect. You never observe a great intellectual movement in Europe in which the Jews do not greatly participate." Mr. D'Israeli then, at length, shews how mighty revolutions are "entirely developed under the auspices of Jews," and mentions, as Jews, those who are or were professing Christians—at excelling in theology, Neander, Benary, Wehl; in diplomacy, Arnim, Cancrin, Mendizabel; in war, Soult, Massena. "What are all the schoolmen, Aquinas himself, to Maimonides; and as for modern philosophy, all springs from Spinoza." In music, "the catalogue is too vast to enumerate; enough for us that the three great creative minds, to whose exquisite inventions all nations at this moment yield—Rossini, Meyerbeer and Mendelsohn—are of Hebrew race." Pastar and Grisi also! We cannot deny ourself the pleasure of quoting also from a lecture on the "Unity of the Races," delivered by our learned and esteemed friend, T. S. Hunt, Esq., of the Canada Geological Survey, as further evidencing the fact under notice, and as an excellent resumé of the above.

Mr. Hunt says: "We see the Children of Israel scattered over the face of the earth since eighteen centuries, without a country, yet finding a home in all; scorned and trampled upon, yet often the power behind the throne directing the destinies of kings; poor and abject, yet holding the golden keys of war and peace in Europe; excelling in philosophy and in theology, in music and in art, in war and in statesmanship; despised, yet ever powerful; counted as aliens, yet, with their genealogies of forty centuries, looking down with scorn upon the aristocracy of Europe, which is but as of yesterday, when compared with their own proud lineage. The Hebrew people still preserves all its natural characteristics, and stands proud and imperishable before us to-day, the representative of the earliest ages of the world's history, and the evidence of the undying vigor of the pure Caucasian race."

ther introduction or apology necessary, ere we introduce them, as we proceed now to do, to these Sanatory laws and constitutions themselves.

To be continued.

ART. XVI.—*Medical Statistics of Prisons*. By A. VON IFFLAND, M. D., M. R. C. S., &c.

THE word Statistics, now so familiarly used by every one, was first employed, about the middle of the last century, by a professor, of Gottingen, to express a summary view of the Physical, Moral, and Political condition of States. Many important facts relating to this branch of knowledge had been published long before this learned appellation was applied to them; and many valuable essays, on the condition as regards the health of various countries, cities, towns, and hospitals, have been given to the world, without the authors of these insulated reports, dreaming that they were laying up materials for the important science of *Medical Statistics—a science, which, by demonstrating the existence of evils, may lead to a removal of their causes, and serve as a test by which to determine the success or inefficacy of the measures resorted to for that purpose.*

A mere register of occurrences, however, which does not tend to establish some general principle, is dull and valueless. Statistics should embrace a comparison between the value of life in ancient and modern times—progressive changes, and present state of mortality in this country—salubrity—Medical Statistics of the cities—of hospitals—of asylums for the insane—mortality of prisons—of the increase and decrease of disease—of climate—influence of various conditions, professions, and modes of life, on longevity—average quantity of disease attendant on particular pursuits—statistics of the sexes, &c., &c.

For upwards of thirty years, the principal Governments of Europe have paid much attention to statistics; and we possess very instructive returns from nearly all the counties, cities, hospitals, and prisons, on the continent. The public good appears to call for the regular publication, on an uniform plan, of the statistics of all our public Institutions, so liable to neglect and abuse as are many of them. For, independent of throwing much important light on the economy of different establishments—which cannot fail to be of great interest and utility—it is statistics alone which can give accuracy to our knowledge, and that confidence in our inferences, which nothing but the careful collection and analysis of facts can rightly confer.

It is not within my knowledge, nor is it, I believe, within that of others older than myself, that any attention has been paid to the hygiene of

our prisons ; it is a subject, however, upon which, since some time past, I have been anxious to devote a few hours, apart from the exigencies of that most arduous, laborious, ill-requited and most unpleasant of practices,—*country practices* ; but, in doing so, I pray a full acquittal of all intentions of trenching upon the official duties of those entrusted with the health of our prisons.

It has been justly observed, that it is highly improbable that imprisonment will ever tend to lengthen life, however carefully the physical condition of the prisoners may be attended to. The depressing emotions, inseparable from a state of confinement, will be continually in antagonism to every physical advantage which may be brought to bear on the prisoner's condition, and, therefore, no doubt can exist, but that the essential character of imprisonments tends to the development of disease, but more particularly of a tubercular class. We must not omit also, the routine life as a second and important condition, distinguishing the prisoner from the free man, and which also exerts an injurious influence on the frame.

Though it may be difficult to prove the assertion, still few will be inclined to deny that the above essential characters of imprisonment tend to the development of tubercular disease ; and it may, perhaps, hereafter be shown, that even in a prison, whose inmates may not suffer in this respect more than the general population, the result has been brought about only by the physical advantages counterbalancing the depressive influences sufficiently to preserve an average amount of health.

We ought not, however, to overlook the fact, that tubercular disease is produced among persons at liberty by exactly those conditions which have prevailed in prisons, viz.: cold, damp, bad ventilation and diet. From this fact, then, we cannot justly reach the conclusion that imprisonment necessarily produces the disease ; for so far as all records are concerned, with few exceptions, we have disease noted for which a true and sufficient cause may be traced, and one not necessarily connected with imprisonment. That tubercular disease has, however, always been considered one of the chief evils produced by confinement in prisons ; we have the authorities of those, whose opinions are based upon long practical experience and observation, and which appear to be confirmed in a remarkable degree by the facts recorded during the experiment which has been made in large prisons.

From these facts, it becomes a matter of very great importance to direct our inquiries as to the time when prisoners are, or may be, injuriously affected in relation to the periods of imprisonment. With the view of influencing these enquiries, I have already submitted a few

observations to Dr. Wolfred Nelson, long holding a pre-eminent position in our noble profession, and upon whom, to the most unqualified satisfaction of the Province at large, the Government has judiciously conferred the important and responsible office of Inspector to the Provincial Penitentiary, and I have every reason to believe, that the subject, involving, as it does, the interests of science and humanity—interests, to which his whole useful life has been subservient—will share his multifarious engagements.

The statistics of prisons, published up to the year 1847, if not entirely conclusive, furnish strong grounds for the general impression which exists among those who have given particular attention to the subject, that the injurious effects of discipline fall more heavily on those prisoners who are confined for *lengthened periods*, than for *short periods*; and that the third period of *six months is especially fatal*, either in its immediate or prospective consequences.

Dr. Baly, whose observations are based on the extensive experience of a very acute observer, in his statistics, remarks:—"In this Milbank Penitentiary, and also in the Prisons of France, the mortality has been greater among the prisoners who were undergoing their second, third or fourth year of imprisonment, than amongst those who had been longer in confinement; *so that it would seem as if prisoners, who were of feeble constitution, or predisposed to disease generally, fall victims to the injurious influence before the end of the fourth year of their confinement, whilst those, who were able to support their punishment until that period without serious deterioration to their health, seem proof against the causes of disease to which they were exposed.*"

Dr. Baly states his opinion, that the cause of scrofula and consumption, being developed by imprisonment, is a *deficiency in free, active, voluntary exercise, the state of mind, cold, and want of ventilation*—that he did not consider the site of the Penitentiary had any influence in producing consumption—that if prisoners had only been confined at Milbank three months, it would have been the most healthy prison in England—and that a great increase of disease takes place in the third period of six months; and also that this would hold good in any prison, *though, if all the causes referred to were less active, the development of disease might be at a later period.*

As regards several of the best conducted prisons in England and France, we have the most unquestionable evidence, that the third six months of confinement has been an especially fatal period, and the same rule holds good to a certain extent in the United States—for instance, at the large Penitentiary at Philadelphia.

We have here, as yet, it is true, no authentic data, by which we might

estimate the physical effect resulting from lengthened imprisonment, or other noxious causes; nor have we, indeed, any record or published report of any particular system of discipline or administrative economy specially established in our prisons, save those but recently, and doubtless judiciously, enforced in the Provincial Penitentiary by those invested with its executive control and surveillance. It is, however, to be hoped that, ere long, the powers of the Inspectors will be extended, and made to include all our penal and other public institutions. It is not my intention to disturb the quiet repose of those, from whom some enlightenment upon this interesting subject might very reasonably be expected, but a question, of so high an importance as that, bearing upon the mortality and physical effect resulting from any particular system of prison discipline and management, is one in which the parliament and public are deeply concerned, whatever Physicians to Gaols may affect to overlook. For if, in enforcing any system of discipline, it be found that the chances of life are diminished in any great proportion, every effort should be made (consistent with the infliction of such a punishment as is calculated to deter from crime) to reduce those chances to a minimum. "Under any form of discipline," says the late Mr. Crawford (a gentleman, whose name is an authority on prison discipline,) "there will be almost as great an *inequality* in the absolute amount of punishment endured, as there is variety in the constitution and circumstances of the individuals who are subject to it. But in no point is this defect of imprisonment so formidable and so deserving of the utmost attention as when it affects the *health* of a prisoner."

The physical condition of one man may be improved by the same discipline that consigns another to the grave. Every consideration, therefore, of justice and humanity would dictate, that where there was a remedy calculated to avert the evil, it should be applied.

Hitherto the effect of imprisonment on the *lives* of prisoners has not attracted the attention which is due to its importance. Capital punishment, as formerly inflicted, has been justly denounced, but the loss of *life*, incidental to imprisonment, *from causes which were remediable*, though noticed in official Reports, appears to have escaped the watchfulness of the public. Nor has the effect of imprisonment on mortality, so far as I am aware, ever been prominently set forth, so as to add to the deterring effect of a sentence on the criminal population generally. It has, therefore, been a sacrifice of life, without any corresponding object gained by it. On reference to several returns on the mortality of prisons, we have the important facts clearly established, that imprisonment for long periods produced every where a high rate of mortality, and that although, in particular instances, other causes might

contribute to increase the number of deaths, yet, in all prisons, the increased mortality was chiefly due to the prevalence of *one and the same disease*, viz.: *tubercular scrofula*. Further, that the most influential causes of mortality from *tubercular diseases*, appear to be, as already stated—1st, deficient ventilation; 2d, cold; 3d, poorness of diet; 4th, want of active, bodily exercise; 5th, a *listless*, if not dejected, state of mind.

With respect to ventilation, temperature, and diet, these essentials are, or may be, secured to any extent that is conducive to health, which limits the inquiry to the means of obtaining more *active, bodily exercise*, and more *varied occupations*, or excitement, in order to relieve the minds of prisoners from *listlessness and defection*.

The same subject is referred to in another paper by Dr. Baly, in which the following observations are made respecting the effects produced in arresting the progress of disease by the removal of depressing influences: "Although there may not be much absolute despondency or remorse among the prisoners, yet there was a state of mind not less injurious, I mean a *listless and torpid condition*, an absence of all *cheerful or varied thought*, attended, in most cases, by an uneasy and anxious sense of restraint, and desire of liberty. The influence, which this state of mind had excited, became most apparent when it was suddenly removed.

"Prisoners, who were in an advanced stage of consumptive disease, and who, in the infirmary, had been gradually and rapidly getting worse, immediately improved on being released from confinement. And, in many instances, I have observed this improvement in their symptoms to commence as soon as the fact of their being recommended for pardon was communicated to them, which sometimes happened two or three weeks before their discharge."

He goes on to say, that the check given to the disease was generally not temporary, that he has seen prisoners, who, on discharge, laboured under fully developed Phthisis, who were perfectly restored to health, not exhibiting any physical sign of structural change.

Improvements in diet, together with the ameliorations in the Sanatory conditions of prisons, have, of late years, been strongly recommended to the local authorities in England, the United States, and France, and from official reports, which have been kindly placed at my disposal, I learn, that, where they have given effect to these recommendations in the principal prisons, the mortality has been reduced one half, and without in the least diminishing the punishment due to crime.

In corroboration of what I have advanced, that imprisonment for long periods produced a high rate of mortality, I shall here subjoin Returns,

showing the progressive increase of Deaths and Pardons with increase of periods, calculated on 1000 prisoners.

Deaths and Pardons at Millbank Penitentiary.

**Ratio of Deaths and Pardons,
per 1000 per Annum.**

First 3 Months,.....	01.1
Second 3 Months,.....	18.4
Second 6 Months, completing 1 year,.....	25.1
Third 3 Months. The most important period of imprisonment, com- pleting 18 Months,.....	54.7
Fourth 6 Months, completing 2 years,.....	65.5

Deaths and Pardons from Consumption at Millbank.

**Ratio of Deaths and Pardons
per 1000 per Annum.**

During the 1st. three Months,.....	0.
During the 2d. three Months,.....	2.8
During the 2d. six Months, completing 1 year,.....	12.8
During the 3d. six Months,.....	29.6
During the 4th six Months.....	38.1

At the Eastern Penitentiary at Philadelphia, in which the average period of imprisonment is two years, the mortality of Convicts at different periods of imprisonment, is as follows:—

Ratio per 1000 per Annum.

During the 1st. three Months,.....	19.57
During the 1st. year,.....	26.26
During the 2d. year,.....	47.61
During the 3d. year,.....	66.97
During the 4th. and 5th. year.....	43.14

ART. XVII.—Case of Expulsion of the Fœtus at full time with the Membranes Entire. By R. W. EVANS, M. D., Richmond, C. W.

On the twenty-sixth day of April, 1851, I was called to attend a delicate woman, aged 40, in labour of her ninth child.

I was informed by a loquacious midwife extremely ignorant, that she had walked the patient about and done all she could for the last three days, and all to no effect, and that she feared all was not right.

I ordered the patient to be put to bed, and administered a few drops of the water of Ammonia. The progress of the labour became more active, the pains constant, and a moderate discharge of liquor Amnii; in about five minutes, the Fœtus was expelled immediately afterwards entire, much to the astonishment of the midwife and her relations. The membranes were opaque and preternaturally thick. I opened the membranes with a pair of scissors, and put the child into a warm bath without detaching the placenta. I tried all the ordinary methods to recover

the child, but to no purpose. The patient enjoyed a good night's rest by the help of an anodyne, and recovered in about eight days.

It is obvious, that the cause of the labour in the above case, being tedious, was the preternatural strength of the membranes, and that labour might have been hastened by rupturing them.

Cases of this kind are rarely met with in practice, particularly at the full period of utero gestation.

ART. XVIII.—*Case of Fracture of the Skull, with loss of portions of the Brain, followed by complete recovery.* By F. S. VERITY, M. D., Hemmingford.

To the Editors of the Canada Medical Journal.

GENTLEMEN,—In your number for April, there is reported an interesting case of "*Fracture of the skull with loss of a portion of the substance of the brain,*" accompanied by some observations thereon by Dr. Butler. The Doctor, in his observations on the case, after mentioning the Vermont case, says: "he has not succeeded in finding the report of but one other case (that of Dr. Snyder, of Va.) of injury to the brain, with a loss of a portion of its substance, followed by recovery." From this I infer, that the Doctor believes recovery to be very rare under such circumstances. I myself, within the last four years, have had one case of *fracture of the skull and loss of a portion of the brain*. The patient's name was David Cummings, aged 14 years. While teasing a horse, he was kicked on the side of the head and sent to the ground senseless. I arrived at the scene of the accident within one hour from the time of its occurrence. On examination, I found, as in Dr. Fitch's case, "a fracture of the skull between the right parietal and temporal bones." On the external surface of the wound, which had bled very freely before my arrival, there were small portions of bone and brain mixed together in a clot of blood; upon removing these, I saw a portion of bone completely detached from the skull and imbedded in the brain; with a forceps I cautiously took it away; a little blood flowed, which brought away several portions of brain, the largest of which was about the size of a hazel nut; this piece of bone was about an inch long. With a probe I carefully felt for any spiculæ of bone which might be remaining, and, after a minute search, I discovered an irregular, jagged piece, about half an inch long, nearly buried in the substance of the brain, which was removed together with every spicula of bone I could find. The patient, during this time, was perfectly comatose, pulse 60, countenance pale, and the breathing heavy; he manifested no sensitive-

ness when the bone was removed from the brain. I dressed the wound and laid over it a cloth dipped in tepid water, and then left him.

I returned in two hours; he was still comatose, but had ejected the contents of his stomach.

As my object is not to detail the treatment, I shall merely add, that extreme re-action took place in twenty-four hours, which was successfully combatted by cold applications to the head, and by brisk purgatives. In two days, sensation returned; at the end of a week he was perfectly conscious, and in a month was well, and has not been inconvenienced by it to this day.

I should have stated that portions of the brain came away at the first three dressings.

As I do not pretend there is anything novel in this case to take it out of the ordinary routine of practice, I send it merely to show that recovery, under the circumstances mentioned by Dr. Butler, is, perhaps, more common than he believes, and I have no doubt that many Surgeons could supply similar and more interesting cases if they would be at the trouble of reporting them.

I remain, gentlemen,

Your obdt. servant,

F. S. VERITY.

SCIENTIFIC INTELLIGENCE.

SURGERY.

NOTE.—We are delighted to see, from the many admirable reports recently published by our old friend, Mr. Butcher, that he, at least, is determined to keep up the high reputation which the Dublin Hospitals formerly possessed for Practical Surgery and Medicine. It is in no unfriendly spirit, but in one of deep regret, that we must express our opinion that, in the “rising generation” of surgeons and physicians, the “Dublin School” has not given evidence of possessing men determined to maintain the character established for it years ago, by the exertions and observations of Colles, Crampton, Cusack, Carmichael, Graves, Jacob, Stokes, Corrigan, Adams, Harrison, Kirby, Smith, and several others. In midwifery and ophthalmic surgery, we allow that, in the present day, we see many worthy to take the place of their predecessors, and, in these departments, an exemplary display of zeal and industry has of late been exhibited; but we repeat that, in pure surgery and medicine, with the exception of the invaluable introduction of compression in the

treatment of Aneurisms, the Dublin Hospitals have not furnished their proportion to the scientific and practical discoveries of the day, and, amongst their surgeons we see but little evidence of emulative vitality. This should not be so, for many of them possess the same opportunities as were presented to the founders of the "School," and, if they recollect that the character of that School was *eminently practical*, they will do well to preserve this its most prominent feature. The statistics of the Dublin Hospitals, published in another department of this Journal, shew that the Medical classes are about equal to what they were years ago, and that numerous clinical lectures are annually delivered. Why is the Profession kept ignorant of the peculiar views of the lecturers, or of the novel and, no doubt, important features of the cases lectured upon? Proud, as we are, of the Dublin School, *cujus parva pars fuimus*, and of having conducted its leading Medical Journal, we look with a jealous eye to its reputation, and, when we recollect the amount of talent that formerly shed its lustre over the medical literature of Europe and of this Continent, we feel that our former *compagnons du voyage* should present themselves more frequently, and give us an opportunity of laying their observations before our brethren in the pages of the Canada Medical Journal, as we now do, by publishing the papers of Drs. Butcher and McClintock.—R.L.M.D.

On the treatment of fractures in the vicinity of the ankle-joint; with observations on the practice of tenotomy, as facilitating reduction of the broken bones. By RICHARD G. H. BUTCHER, F. R. C. S. I., Examiner on Anatomy and Physiology in the Royal College of Surgeons of Ireland, Surgeon to Mercer's Hospital, &c., &c., &c.

IN the *Dublin Quarterly Journal* of last month, there is a practical paper by Mr. Butcher, illustrative of the treatment of fractures in the vicinity of the ankle-joint. A number of instances are recorded, some of them of the most complex nature, yet, by the treatment laid down, and the apparatus recommended, the "integrity of the limb and its normal functions were in every instance preserved to the sufferer." Space will not permit a lengthened detail of the several cases and their management, but the concluding observations on the practice of tenotomy in similar cases, we shall transcribe in the author's own words:—

"One of my chief reasons for wishing to place these cases on record is the practice lately brought into requisition in London, in the management of the special fractures under consideration. I allude to *tenotomy*, the division of the extensor tendons, to facilitate reduction, as practised by Meynier, Berard, Laugier, and other French and German surgeons. A lengthened discussion not long since took place before the Medico-Chirurgical Society of London, on the practice of tenotomy, in some cases of fracture, when Mr. C. De Morgan related some cases in

illustration." In the first cited, the tendon was not divided until the day after the accident. 'The second case occurred in the author's own practice. The patient was a female, aged 66, of drunken habits, and was admitted into the Middlesex Hospital in March, 1849. She had been knocked down by a cab, and both bones of one leg were fractured a little above the ankle.' The report goes on to say :—'The author divided the tendo-Achillis on the ninth day, with instant relief to the suffering of the patient, and immediate removal of all untoward symptoms.' A very important feature in the management of these cases has been omitted altogether: the manipulation adopted for the reduction of the fracture, and the position in which the limb was placed afterwards. In the second case, it is stated that 'the tendon was divided on the ninth day.' I can easily understand that this might be requisite, if the fracture, with its attendant deformity, was left unreduced for that length of time; failure of the therapeutic means employed; and the spasmodic actions of the extensor muscles thus prolonged; for if fractured bones be left unreduced for such a lengthened period as this, *permanent* spasm seizes on the muscles and becomes established; a fact clearly pointed out and insisted on by Sir A. Cooper. Mr. De Morgan goes on to say :—'In the case related, the chasm between the divided portions at first did *not* exceed a quarter of an inch, that being sufficient to get the bone into position; and in a short time after there was no appreciable space at all.' This admission goes still further to proclaim that there is no necessity for division of the tendon to effect reduction, if the case is seen early; for, by flexing the thigh as I have recommended, we can relax the extensor muscles more than 'the quarter of an inch, that being sufficient to get the bone into position.' I am of opinion that, in ninety-nine cases out of a hundred, there will be no necessity for division of the tendon to effect reduction, if the limb be treated as I have advised; nay, on the contrary, I think, in some instances, the division of the tendon would be very injurious, as removing the support posteriorly from the ends of the broken bones, and thus permitting displacement in that direction. The mode in which the fracture box, which I have described, supports the leg in a horizontal line, with the thigh slightly flexed, padded, and cushioned, as illustrated by the foregoing cases, meets every requirement of the surgeon. Dupuytren's splint, in conjunction with these means, as used in some of my cases, is a most admirable adjunct; but, taken by itself, it will not answer as well for the management of the form of fracture under consideration; for if the limb be done up as directed by Dupuytren, and placed flexed upon its side, some lateral displacement will take place; or if, with the splint so applied, the leg be allowed to rest upon the heel, it is unsteady, and

rolls about, and the entire limb is in the extended position—a posture very objectionable, as making tense the tendo-Achillis.

From a review of these cases, and the observations upon them, the following facts are, I think, deducible :—

1st. That by proper position of the limb, and early reduction, coaptation of the broken fragments can be effected, and spasm averted.

2nd. As the result of the broken bones being kept in accurate position, irritation is subdued, excess of callus prevented, and the motions of the joint left unimpaired; a fact of great practical importance here, for the experiments of M. Cruveilhier prove that various forms of irritation will make the periosteum and ligaments ossify, and it has been ascertained that in some cases of fracture near the joints the ligaments have sometimes been converted into bone, and M. Rayer has observed, from numerous interesting experiments, that a similar change may be exerted not only in the fibrous but also in the cartilaginous structures.

3rd. That tenotomy is not called for in the vast majority of cases, being perhaps only admissible when permanent spasm has located in the extensor muscles, owing to neglect of early reduction.”

Dilatation of the Canal of the Urethra for the Expulsion of Small Calculi.

M. PAMARD, of Avignon, is known in France for having strenuously advocated the dilatation of the urethra as a substitute for lithotrity, when the calculus is small. In a late communication to the Academy of Medicine of Paris, M. Pamard mentions three cases recently treated, where the stones were about the size of a bean. Dilatation by Mayor's sounds and the copious injection of warm water, caused the calculus, in each case, to be expelled through the urethra. M. Pamard does not say whether the patients he has treated by this method have subsequently suffered from incontinence or not; this is, however, a point worthy of being cleared up.

PRACTICE OF MEDICINE AND PATHOLOGY.

(We find the following interesting observations on that confessedly obscure affection, viz., “Bright's Disease,” in a review of Dr. FRERICH'S Treatise, published in a late number of the “Medical Times and Gazette.” We copy the article without abridgment, as its value would thereby be much diminished.)

“Bright's Disease and its Treatment” are still among the *vexata*

questiones of pathology and therapeutics, and as Dr. Frerichs is so well known and highly esteemed in this country on account of his physiological inquiries, we feel assured that an analysis of his pathological researches will be more welcome than any lengthened critique upon their results.

It is not easy to condense into smaller compass a work so crowded with facts as that before us; but, limiting ourselves to the observations and opinions of its author, and placing in the most prominent position those which have the greatest share of novelty, the probability of his receiving justice at our hands will be greater than if the attempt were made to weigh the merits of his treatise with those of others who have preceded him.

The first chapter contains an "historical retrospect," into which it is not necessary to enter, as the facts are more or less familiar to every student of pathology. It is interesting to observe the early date at which groups of symptoms were recognized as bearing more than an accidental relationship to each other, and it is still more so to perceive that the links connecting them were discovered only when inquiry proceeded upon the truly inductive method,—for we are conscious that there is in it the germ of a power which will eventually be great enough to grasp facts apparently more widely separated, and penetrating enough to perceive their bonds of union.

The anatomical changes in the kidney are divided into three forms, which may also be considered as stages of the process of disease. They are the following:—

- I. The stage of hyperhæmia, and of commencing exudation.
- II. The stage of exudation, and of its commencing transformation.
- III. The stage of degeneration—atrophy.

In the first of these, which is frequently attended by hæmorrhagic effusion from the glomeruli, from the capillary plexus surrounding the urinary tubuli, or from the veins upon the surface of the cortex, the epithelium of the tubuli is not essentially changed, although the canals themselves, especially those of the cortical substance, are commonly filled with coagulated fibrin. These coagula are sometimes perfectly simple, and present themselves in this condition as casts of the tubes in which they were formed, while at other times parts of the epithelial lining, or more or less changed blood-corpuscles, may be found imbedded in them. This condition is not often met with anatomically (20 times in 292 *post-mortem* examinations), and is then the accompaniment of an acute, violent illness. The disease when chronic is rarely fatal at so early a period.

In the second stage the process of exudation increases, while the

hyperhæmic condition becomes less marked. Metamorphosis of the exuded matter follows; the epithelium and the fibrinous-casts of the tubuli break up into fatty molecules. In the Malpighian corpuscles similar exudation and fatty matter are seen lying between the capsule and its contained glomerulus, and then these bodies are raised above their natural size; but as long as the stream of secretion, poured from the glomeruli, is sufficiently powerful to remove the coagula of fibrin, this increase of dimension is not observed. In the urinary canals, especially those of the cortical substance, important changes are in progress; the epithelium undergoes complete transformation, losing gradually the form of its cells, presenting fatty infiltration to a variable extent, and ultimately losing its characteristic appearance and function, and becoming replaced by granular detritus and fat. This second stage was found in 139 in 292 examinations. It embraces the 1st and 2nd forms of Bright; the 2nd, 3rd, and 4th of Rayer and Rokitansky; the 2nd, 3rd, 4th, and 7th of Christison; and the 2nd and 3rd of Martin Solon.

In consequence of the degeneration of fibrin in the urinary tubuli and the Malpighian corpuscles, and the removal of this with the more or less transformed epithelium, the walls of these structures collapse, and part of the kidney is atrophied. It is this which constitutes the third stage of Bright's disease. This atrophy is brought about in some cases by the contraction of plastic matter, when the latter has been exuded into the interstitial textures. This is rare, however, and when present is only a co-operative cause of atrophy. This 3rd stage of Frerichs corresponds with the 3rd of Bright, the 5th and 6th of Rayer, the 5th and 7th of Rokitansky, and the 4th of M. Solon.

Among the not constant anatomical changes of the kidney, Frerichs enumerates and describes—1. Apoplexy; 2. Suppuration; 3. Cystic formations; 4. Calculous deposits; 5. Tubercle, etc. In the paragraphs upon the chemical changes in the kidney, the amount of solid constituents is given, and the proportion of fat in a hundred parts of dried kidney substance. In health the latter varies from 4.4 to 5.05 per cent. In morbus Brightii it was found varying from 4.40 to 13.9. Generally speaking, the quantity of fat was greater when the disease had advanced to the third stage, but this is not invariable; and the fact, that by chemical examination the quantity is often found to be much less than microscopic observation would lead us to expect, must, according to Frerichs, be considered as a proof that we are not justified in naming as fat all those globules which resemble it in form. In the kidney of a cat, and in that of a dog, the fat was found by Frerichs to vary from 27.20 to 32.50 per cent. Both animals were perfectly healthy; their urine

contained not a trace of albumen, a sufficient proof that morbus Brightii cannot be considered dependent solely upon fatty degeneration.

A statistical report, and tabular representation of the changes found (*post mortem*) in other organs, concludes the second chapter of the book. The cases are gathered from Bright, Christison, Gregory, Martin Solon, Boquerel, Rayer, Bright and Barlow, Malmsten, and the author's own observation.

The third chapter presents a short account of the general course of the disease in its two forms, acute and chronic; and we pass from it to the fourth, entitled "Special Symptomatology." In this the appearances (merely sketched before) are described in detail,—their frequency given numerically,—their causation examined,—and their clinical value in respect of diagnosis, prognosis, and treatment, pointed out.

The symptoms are treated under the following heads:—1. Those of disordered uro-poësis,—embracing, (a) pain in the region of the kidney; (b) percussion and palpation; (c) frequency of micturition; (d) changes of the urine. 2. Those of changed blood. 3. The habitus of the patient. 4. Dropsy. 5. Changes in the action of the skin. 6. Uræmic intoxication, (chronic and acute). 7. Disturbances in the functions of the primæ viæ. 8. Pseudo-rheumatic pains.

It would be impossible to present anything but the most unsatisfactory analysis of this chapter, if we attempted to embrace all its contents. We shall limit ourselves to those included under the 6th and 7th heads; and we shall do so simply because the statements there made have more of novelty than the others.

1. *The Chronic Form of Uræmia*.—This steals slowly and unobservedly upon its victim, and is in almost every instance fatal. In the early stages of Bright's disease, there is a peculiar dullness, or sleepiness, in the expression of the face, and in the demeanour of the patient. He complains of dull headache,—a "light" feeling,—the eyes are expressionless,—the whole physiognomy is depressed in its features,—he is forgetful, and listless. These symptoms diminish if the secretion of urine becomes more abundant, and sometimes they disappear entirely for a time. In other cases they gradually increase in intensity; the sleepiness passes into stupefaction; the patients, who at first can be roused by speaking to them loudly, or by other means, and will then give rational replies, now sink into everdeepening lethargy; it is impossible any longer to arouse them; respiration becomes stertorous, and is replaced only by the gurgling of death. They generally lie perfectly still, without speaking. Delirium is rare; when it does occur, it is of the low muttering description; the patients repeat, times without number, a few words or sentences. Death is often preceded by convulsions; trembling of the

hands: distortion of the features, becoming quickly followed by clonic spasm, extending over the whole system of voluntary muscles. This is the more common form of nervous disturbance in Bright's disease. It may last for a longer or shorter time, and is often capricious in its course. Nevertheless, it is more to be dreaded than any other complication, for it is the most certain herald of a fatal termination. Differing from it in its manner of appearance, and very essentially different in respect of prognosis, is the

2. *Acute form of Uræmia*, which commences suddenly, and in a short time reaches its full intensity. It appears to attack the patient in one of three ways, the first symptoms being either those of depressed cerebral function, of irritation of the spinal cord, or of a combination of the two. Frerichs confirms, from his own experience, the statement of Dr. Addison, that when (under depressed cerebral function) the respiration becomes stertorous, there is not the deep guttural tone heard in hæmorrhagic apoplexy, from the movements of the velum palati, but that the sound is of higher pitch, and is caused by the passage of air against the hard palate and the lips. He also adds his testimony to that of Dr. Bright with regard to the persistence of consciousness in some cases where uræmia has evidenced itself first by convulsion. Although the prognosis is more favourable when the attack has this acute character, inasmuch as it generally follows a sudden suppression of the urinary secretion, yet it may prove fatal in a few days, or even hours; and the result must be anticipated as very unfavourable when acute uræmia intoxication occurs, as it does not unfrequently, during the course of chronic Bright's disease. A sudden change in the quantity or quality of the urine, disturbances of the organs of sense, etc., are insisted on as of importance in the light of warning symptoms. There are cases, however, where these are entirely wanting, and the diagnosis may be attended with great difficulty. A very constant, and in the earlier periods of uræmia, a prominent symptom, is vomiting. Altered ingesta are thrown up at first, but subsequently a thin, watery substance only. Its re-action, seldom acid, is generally neutral or alkaline; it emits frequently a sharply ammoniacal odour; and, if a glass rod dipped in hydrochloric acid is brought near it, copious white fumes are developed. If the inodorous, neutral, or even slightly acid fluid is heated with liquor potassæ, the presence of an ammoniacal compound is demonstrated. Frerichs has frequently sought for undecomposed urea in the vomited matters, but always without success. Artificial uræmia, induced in animals by extirpating the kidneys and injecting urea, is attended by the vomiting of similar matters containing a large quantity of carbonate of ammonia, but no undecomposed urea. The decomposition of urea into carbonate of ammonia does not (according to Frerichs)

take place in the stomach through the action of the gastric fluid, (as Bernard and Barresewil maintain,) but it is brought about in the blood within the vessels.

This form of vomiting must not be confounded with others, which are very common in the course of morbus Brightii, and which have their origin in chronic catarrh of the stomach, simple perforating ulcer, the misuse of spirits, etc., etc. The characters described serve to distinguish them from that of true uræmic character.

Serious disturbances of the nervous system appear to be in many cases delayed or altogether avoided by this vicarious excretive process. This has, however, been too confidently asserted to be a general rule by Bernard and Barresewil. In the stomachs of animals whose kidneys have been removed, ammoniacal compounds are constantly found; but the uræmic condition is not thus delayed in the majority of instances. It gives evidences of its presence at the time that the described change takes place in the secretion of the stomach. Ammoniacal salts are then found in nearly all the secretions, and compounds of that base may be discovered in the expired air. The relation of diarrhœa to uræmia requires further elucidation, and Frerichs does not give his opinion upon the subject.

The conditions of the perspiration and of the expired air are then closely examined. The former has been tested principally by the noses of pathologists, and is left doubtful; in the latter, the presence of ammonia is established; and in artificial uræmia, it was not until this base could be detected that any signs of disturbance in the nervous system were observed. Pathological anatomy is then shown to throw no certain and no constant light upon the nature of uræmic intoxication; and it is believed, that in the condition of the blood the key to the mystery is to be found. Its physical properties, in respect of consistence, colour, odour, etc., present no unvarying change of character. Its chemical relations are altered, and the alterations are essential. In all cases where the symptoms of uræmia presented themselves, carbonate of ammonia, and, in addition, undecomposed urea, were found in the blood. The quantity of the former is variable to a high degree; but in no one instance did it remain undetected. Frerichs gives another historical sketch of the theories of this branch of his subject. For a long time the opinion has been almost universally held, that the cause of these symptoms was to be found in the retention of some urinary elements in the blood. Osborne and G. Owen Rees form the exceptions; the former being of opinion that arachnitis was the cause, to which pathological anatomy returns the most satisfactory answer; and the latter, questioning the influence of urea in the production of coma, etc., from the perfectly correct observation, that

the appearance and intensity of such symptoms in morbus Brightii, hold no constant relation to the quantity of the urinary secretion ; and further, that the blood may be surcharged with urea, and yet cause no symptom of uræmic poisoning. Rees considered hydræmia as the essential condition ; but this cannot be so important as he would make it appear, since coma, convulsions, etc., occur in acute morbus Brightii, during either the earlier or later stages of scarlet fever, typhus, etc., without there being any evidences of such thinning of the blood. The question remains to be answered, in what way suppression of urine exerts the influence assigned to it, and which of its elements is the active agent ? By the experiments of Vauquelin, Sigalas, Bichat, Courtin, and Gaspard, repeated with additions of his own, Frerichs proves, that the presence in the blood of a large quantity of urea, of uric acid, or of urine itself, with extractives and salts, cannot cause the symptoms commonly observed when suppression of the secretion takes place. The result of a course of inquiry undertaken by Frerichs in 1849 and 1850, is that for the production of uræmic intoxication, the presence of any or all of these substances is insufficient, but that the urea must be decomposed through the agency of a peculiar ferment substance, and carbonate of ammonia set free within the blood-vessels. The production of this decomposing agent in febrile affections is not difficult to suppose, and the rapidity with which symptoms of uræmia are developed when morbus Brightii supervenes upon scarlet-fever, typhus, etc., together with the suddenness of their appearance in a person whose blood has been for a long time overladen with urea (without them) lend support to the view. The injection of carbonate of ammonia into the blood induces all the symptoms of uræmia, and without defining the precise nature of the ferment body, but asserting that a very slight modification of one of the normal elements of the blood would be sufficient for the purpose, Frerichs, by a course of experiments, considers that he has established his theory with regard to uræmia.

It would be impossible, within the limits of this review, to follow our author closely through the minutiae of the concluding chapters. We can but indicate the topics which form their basis, so that our readers may form some estimate of the book.

In the chapter upon the *complications* of morbus Brightii, the several diseases of the heart, arteries, veins, liver, and spleen, &c., &c., are examined and described. The *frequency* of Bright's disease, its *duration*, *course*, and *terminations*, are then considered ; and separate chapters are devoted to the questions of etiology and pathogenesis, essence of the disease, diagnosis, prognosis, varieties (forms), and therapeia. An Appendix, containing clinical reports of sixteen cases, and the results of a series of experimental researches, concludes the volume.

Frerichs describes the following forms:—1. Simple. 2. Cachectic. 3. That of the drunkard. 4. That occurring in acute blood-disease, (cholera, scarlet fever, measles, typhus, &c.) 5. That accompanying pregnancy.

In the chapter upon treatment, the disease locally and generally, its more constant and its occasional complications, are severally dwelt upon. The author does not commit himself to the system of depletion, of strengthening, of continually produced diuresis, purgation, or diaphoresis, but gives the moderate and judicious employment of all the various agents mentioned a position in his list, the peculiarities of the case under consideration leading to the choice of that which is most suitable.

In respect of the treatment when uræmic intoxication is present, Frerichs recommends acids, which should form innocuous compounds with ammonia in the blood, such as the vegetable acids.

Spontaneous development of gas in the blood, a cause of sudden death. By M. DURAND FARDEL.

M. DURAND FARDEL read a paper before the Academy of Medicine of Paris on the spontaneous development of gas in the blood. The history of the following case, which formed the principal part of the paper, may be looked upon as a description of the disease, which, notwithstanding the writings of Morgagni, of Reyrolles, and Ollivier, is still only imperfectly known.

A lady, living at Versailles, aged 56, rather tall and fat, came to Vichy, along with her husband, who was affected with gravel. It appeared that this lady had enjoyed very good health, not having been indisposed, at least for some years back. She had ceased to menstruate about six or seven years ago, and had been subject to no hæmorrhoids nor epistaxis; did not complain of headache, nor any other disorder; her digestion seemed to go on regularly; she never suffered from deafness or loss of memory; she had a good appetite, and led a regular life; belonged to the middle class of society. She did not complain of rheumatic or gouty pains, but she sometimes complained, not of palpitations, but of a slight difficulty of breathing. Her breathing was habitually short, as frequently happens to fat people, and which she never attributed to any other cause.

This lady, being at Vichy, wished, as is the fashion, to take the baths, and obtained authority for that purpose from the physician who attended her husband. She also drank some glasses of the mineral water, but in small quantity.

July 20, 1850. She proceeded to the thermal establishment to take

her second bath at four o'clock in the morning. She had been in good health in the evening, had dined as usual, and had slept well. In going to the establishment, her respiration was more difficult than usual; she had to rest herself sitting before taking the bath, and the attendant seeing her so oppressed, advised her not to take the bath for that day. At the end of half an hour she wished to get out of the bath; her maid, who had not left her, had not remarked anything particular about her. But she did not feel at ease, and when she got up from the bathing-place to change her dress, she appeared agitated, and complained of oppression; then she got out, and sank into a chair before she could be covered with a dry sheet. Respiration had become difficult, although she made violent efforts to breathe; she had lost the power of expressing herself. In the meantime, I had been sent for at the first symptoms of the affection. Five minutes had not elapsed before I was with her. She was then dead.

I found her sitting in a chair, supported by the persons who surrounded her, still covered with her wet bathing shift. The face had completely lost its colour; the lips slightly violet; the face not distorted or disfigured; no froth on the lips; the limbs were flaccid, and quite insensible; complete absence of pulse and sounds of the heart; pupils dilated and immoveable; conjunctiva insensible to the touch.

Although this state left no doubt of the reality of the death, I made a large opening in the median basilic vein of the right arm. There flowed immediately a little blood, not black, but violet and frothy; that is to say, accompanied by bubbles of gas, of unequal volume, which came from the vein at the same time. I remained more than a quarter of an hour making useless endeavours, tickling the uvula, applying ammonia to the nostrils, &c. During this time I did not quit the arm, examining the exit of the frothy blood, which continued to flow from time to time, under the influence of pressure applied on the forearm from below upwards. One time, a jet squirted out with some force, and lasted for five or six seconds, as if driven out by a bubble of gas, which was developed in the interior of the vessel; a slight quantity of white froth showed itself at the lips.

The autopsy was made twenty-two hours after death, the 31st of July, at three o'clock in the morning. The body presented no appearance of putrefaction; some lividity only on the depending portions of the trunk and members. The heart was very large; the right cavities distended with liquid blood, rather violet-coloured than black, syrupy, very frothy; the bubbles of gas enclosed were some (very numerous) as big as the head of a pin; others, less common, as large as peas. When pressure was applied over the course of the two *venæ cavæ*, the blood which flowed into the right auricle was frothy, like soap and water. The pari-

etes of the right cavities of the heart presented a superficial violet colour; the left side was completely void of blood, and not coloured; the left ventricle was considerably hypertrophied; the orifice of the heart did not present any appreciable alteration, as also the aorta. All the abdominal venous system was distended with violet and frothy blood; also numerous bubbles of gas were found in the blood of the splenic and portal vein. The lungs filled the chest; presented a few adhesions, and some appearances of emphysema; their colour was reddish outside, but of a deeper tint internally, where it presented traces of considerable sanguineous congestion, without infiltration of blood. There was considerably frothy congestion in the more depending parts. The bronchi contained some whitish frothy mucus. The abdominal organs presented nothing more worthy of notice than a considerable sanguineous congestion of the liver, spleen, kidneys, and a remarkable congestion of the veins of the epiploon and mesentery. The epiploon was very fat; the stomach rather large, and containing about half a glass of clear colourless mucus. The intestines were not opened. The encephalon did not present the same degree of congestion as the other organs; the sinuses of the dura mater contained only a little liquid blood, not frothy. The brain and origin of the spinal marrow, examined as soon as possible, appeared completely natural, a little injected with blood; no bubbles of gas appeared in its vessels.

We publish this case in all its details, as science possesses as yet very few cases of this kind. The observations of Morgagni, wanting in certain details, do not allow of a certain judgment. M. Reyrolles, in two cases of death by hæmorrhage, found the blood frothy in the heart and veins.

Finally, M. Ollivier, of Angers, published a case (*Ann. Gen. de Méd.*, 1838) which leaves no doubt as to the existence of the disease which M. Durand Fardel observed in this case. A curious circumstance, doubtless observed before, enabled M. Durand Fardel, to state the existence of gas at the moment even of death. The bleeding performed at the arm gave issue for more than a quarter of an hour to blood, which, trickling from the vein of a body deprived of life, carried with it numerous bubbles of gas.

To what cause can the origin of this gas be attributed? This is a question still undetermined, and which may be perhaps solved at some future time by the chemical analysis of the gas found in the blood. Whatever it may be, the observations of M. Durand Fardel tend to prove that it is owing to a spontaneous exhalation from the veins, caused by a spontaneous alteration of the fluid, of which we know neither the nature nor the cause.—*Presse Méd. de Bruxelles.*

Brazilian Method of Treating Dysentery with Infusion of Ipecacuanha.

THIS method, long ago advocated by Helvetius, Margrave, and Pison, consists of the following measures: From thirty grains to two drachms of ipecacuanha are powdered or bruised, and from eight to twelve ounces of boiling water poured over the drug. Ten or twelve hours' infusion are sufficient, and the patient takes the whole in the morning, either at once, or in two or three portions drank off closely one upon the other. Vomiting and abundant stools soon follow. The next day the same dose is taken, a second infusion having been made with the *grounds of the first*; the vomiting is now less, but nausea is kept up; and the third day an infusion with the same grounds is again made, and taken as before. The author of an article on the subject in the "*Bulletin de Thérapeutique*" does not think that the shock and nausea cure the disease, as is generally supposed, but that the success is obtained by the small quantity of ipecacuanha which is absorbed. He therefore gives the infusion, sweetened and aromatized, only in spoonfuls, so as to obtain a tolerance of it, and he has thus succeeded in curing the disease in a few days. The surest sign of improvement is a change in the character of the stools, which, from being muco-sanguineous, purulent, sanious, or composed of pure blood, become serous, bilious, and gradually more solid, just as the ipecacuanha acts favourably.

De la Transfusion du sang à propos d'un cas suivi de guérison; par les et docteurs DEVAY DESGRANGES, médecin et chirurgien en chef désignés de l'Hôtel-Dieu de Lyon.

(Suite.—Voir notre premier No.)

Les détails de l'observation qui précède mettant en évidence la gravité de la situation de cette femme, le danger prochain qu'elle courait, nous dispense de traiter, pour l'espèce, de l'opportunité de l'opération qui a été pratiquée. Il est cependant une circonstance qui est venue depuis à notre connaissance et qu'il est bon de rappeler. Avant d'entrer à l'Hôtel-Dieu, cette femme avait été vue par un praticien recommandable, le docteur Keisser, qui, la veille, avait fait part à sa famille du pronostic funeste qu'il portait, en recommandant qu'on lui administrât les derniers sacrements. Des circonstances particulières à nous connues, relatives à la cause de la métrorrhagie, tendaient encore à augmenter nos appréhensions. En définitive, cette malade offrait le type de ce collapsus vital, déterminé par des pertes excessives et accidentelles, où, d'après nos lumières et notre conscience, nous devions tenter une médication exceptionnelle. Toute autre alternative nous échappant, il restait

à fournir à cette malade, dans sa défaillance, un petit capital du fluide animateur et nourricier pour soutenir le jeu des organes, gagner du temps et instituer à son profit une thérapeutique efficace. L'indication de la transfusion du sang était formelle, nous l'avons saisie et mise immédiatement en pratique.

Les suites de l'opération, qu'il nous a été donné d'observer longtemps, ont présenté des phénomènes dignes d'intérêt. Ces phénomènes ont été *primitifs* et *consécutifs*. Ces derniers ont revêtu des caractères complexes, tenant à la fois des fièvres graves, de l'état puerpéral et de la chloro-anémie. Nous avons eu sous les yeux une affection composée de plusieurs éléments disparates, une affection *sui generis*, ne rentrant dans aucune partie du cadre nosologique. Nous verrons plus loin leur ordre de filiation.

Les phénomènes primitifs résultant immédiatement de la transfusion ont duré vingt-quatre heures. Ils ont été marqués par la réaction s'élevant insensiblement jusqu'à une surexcitation qui pouvait donner quelques craintes. Ces phénomènes primitifs peuvent donc se diviser eux-mêmes en phénomènes immédiats et en phénomènes secondaires. Les premiers, que tous les assistants ont suivis avec le plus vif intérêt, ont consisté dans le réveil des fonctions de la vie de relation, à mesure que le fluide réparateur pénétrait dans l'organe central de la vie végétative. On assistait en quelque sorte à une résurrection : la malade semblait sortir du sommeil, elle inspirait plus fortement, et ses yeux, redevenus expressifs, indiquaient qu'elle avait la conscience de ce qui se passait autour d'elle :

Spiritus intus alit ; totumque infusa per artus
Mens agitat molem.

Durant les premières heures qui ont suivi l'opération, la réaction ne dépasse pas ce mode physiologique. Le pouls est toujours fréquent, mais il offre plus de résistance ; les bruits anormaux perçus par l'auscultation du cœur et des gros vaisseaux ne se font plus entendre (ils avaient du reste disparu immédiatement après la transfusion). Jusqu'au soir, la malade paraît jouir d'un calme profond ; interrogée sur ce qu'elle éprouve, elle indique par des signes qu'elle se trouve bien. Le soir, le scène change, une agitation insolite se déclare ; la nuit est marquée par le délire et les mouvements désordonnés. Cet état persiste pendant la journée du 27. L'explication de ces phénomènes secondaires pourrait, ce nous semble, être fournie par les données physiologiques suivantes : le sang injecté chez ce sujet anémique a déterminé immédiatement, par son contact avec les rouages de l'économie, une série de mouvements fonctionnels ; plus tard, ce même sang s'étant trouvé en

rapport avec les parties profondes de l'organisme où s'opèrent les métamorphoses, a déterminé une réaction de la part de celui-ci. Il y a eu une lutte, un conflit, pour emprunter le langage de Burdach, entre ce sang nouveau et les parties solides ; il a fallu un certain temps pour que l'équilibre s'établît.

Les jours suivants, des symptômes d'un ordre tout différent éclatent : la langue se recouvre d'aphtes, une odeur putride est exhalée et coïncide avec un écoulement lochial verdâtre. L'ensemble de tous ces signes revêt le cachet des fièvres adynamiques putrides. Néanmoins, en rapprochant les commémoratifs des circonstances actuelles, nous pûmes voir dans cet état l'influence de la fièvre puerpérale. Plus tard, la marche ultérieure de la maladie, la *phlegmasia alba dolens* qui a succédé, a donné gain de cause à cette interprétation. Cette malade subissait l'influence des suites de couche ; la transfusion l'avait mise à même de renouer son mode pathologique avec l'état antérieur, qui était un accouchement prématuré ; les phénomènes pathologiques que comporte cette dernière circonstance ont repris leurs droits avec le retour de la vitalité. La transfusion a donc eu pour effet de rétablir chez cette malade les choses où elles en étaient à leur point de départ : ce fait nous paraît avoir une grande valeur dans l'ordre physiologique.

A cette phase de la maladie succède une période d'hydroémie. Un anasarque presque général se déclare ; on perçoit un bruit de cuir neuf par l'auscultation du cœur ; celle de la poitrine pouvait faire craindre un épanchement dans les cavités pleurales. Ces derniers symptômes se dissipent au bout de peu de temps ; mais la chloro-anémie se prolonge pendant une douzaine de jours. Dans cet intervalle la malade reprend des forces, le 9 elle peut descendre de son lit et y remonter sans l'aide de personne. A ce moment elle touchait à la convalescence, lorsqu'à la suite d'une trop longue station elle est saisie d'un œdème douloureux de tout le membre inférieur droit. La tension des parties, la douleur siégeant au pli de l'aîne, la réaction fébrile, ne laissent aucun doute sur la nature de cet accident : c'est le *phlegmasia alba dolens*. Cette complication, énergiquement combattue, cède au bout de peu de jours, elle a été comme la dernière phase de l'état puerpéral. A partir de cet instant, nous n'avons plus à enregistrer qu'une amélioration constante et soutenue. Si nous eussions accédé aux désirs de la malade, celle-ci eût pu quitter plus tôt les salles de l'Hôtel-Dieu ; mais nous avons tenu à consolider la santé de cette femme et à avoir un résultat irréfragable. La veille de son départ, elle fut visitée par les mêmes honorables collègues qui avaient assisté à l'opération, et comme nous ils ont constaté avec bonheur l'étonnante métamorphose qui s'était opérée.

Les détails peut-être un peu trop nombreux de cette observation indiquent que la thérapeutique n'a point été inactive, que ses ressources ont été largement appliquées aux besoins de notre malade. Ceci n'enlève rien au bénéfice de la transfusion : cette opération a sauvé la vie de la malade en la soutenant quelque temps ; la thérapeutique a maintenu, puis définitivement fixé les efforts conservateurs. La première a allumé le flambeau, la seconde l'a animé.

I.—INDICATIONS DE L'OPÉRATION.

Nous pensions que ce n'est qu'à l'aide de sages restrictions posées à son emploi et puisées dans la saine observation des phénomènes physiologiques et pathologiques, que cette puissante ressource de l'art parviendra à être définitivement adoptée, qu'elle passera dans les mains de la pratique, si nous osons exprimer ainsi. Toute autre marche la compromettrait. Posons donc en principe que cette médication doit être exceptionnelle. Nous la considérons comme un moyen *excitateur* et non comme un moyen *régénérateur*. Cette distinction pour nous semble capitale. Tout ce que l'on peut, en effet, raisonnablement attendre de la transfusion du sang, c'est le réveil des mouvements organiques dans un cas de mort apparente ou de collapsus général, déterminé par la soustraction rapide du fluide vivifiant. Les autres effets non-seulement sont incertains, mais pleins de dangers. Qu'attendre de la transfusion, chez le vieillard décrépit, dont les solides, modifiés par l'âge, ont perdu leurs rapports avec un sang jeune et riche ? Qu'en attendre pareillement chez un sujet dont l'organisme est profondément détérioré par une maladie chronique ? L'analyse de notre observation démontre que la transfusion provoque des effets secondaires assez intenses. Or de pareils phénomènes déterminés chez des personnes se trouvant dans une des catégories citées plus haut, engendreraient de la part des solides une réaction mortelle. L'histoire désastreuse des débuts de la transfusion doit d'ailleurs être pour nous un fécond enseignement. Cette méthode a péri dès son origine, parce qu'on s'en est servi dans un but régénérateur : les tentatives vraiment utiles qu'elle avait fait éclore ont été abandonnées par suite des abus de l'ignorance et des fausses théories humorales.

Ainsi, pour nous, l'indication de la transfusion du sang réside dans un état d'anéantissement posthémorrhagique. Mais là, il y a encore d'importantes distinctions à établir. Il faut que le sujet, antérieurement à l'accident, soit sain, ou du moins qu'il ne soit atteint d'aucune maladie *cum materia*. Une affection organique (tubercules, cancer, squirrhe, etc.) compliquerait singulièrement les chances de l'opération. Il en serait de même d'une inflammation étendue des viscères ou des mem-

branes qui aurait débuté avant l'accident hémorrhagique : dans ce cas la transfusion, par son effet secondaire, ne ferait qu'accroître le stimulus ; le bénéfice ne serait que temporaire. C'est, ce nous semble, la cause de l'insuccès d'une des dernières opérations pratiquées par un chirurgien distingué de la capitale. Aussi sommes-nous convaincus que l'opération de la transfusion du sang, appliquée aux suites des hémorrhagies puerpérales, doit réussir en raison directe du moins de temps qui s'est écoulé depuis l'accouchement. Ainsi elle a infiniment plus de chances de succès sur une femme épuisée par une perte qui suit immédiatement l'accouchement que sur celle qui l'éprouve quelques jours après. Dans le premier cas, la soustraction brusque du fluide sanguin arrive sans qu'aucun chargement considérable se soit encore opéré dans l'organisme ; dans le second des mouvements fluxionnaires se sont déjà établis sur les organes du bas-ventre. La meilleure condition est donc celle-ci : soustraction brusque et accidentelle du sang chez un sujet n'ayant point encore éprouvé de modifications morbides. Mais loin de nous la pensée d'établir une contre-indication à l'opération dans les autres circonstances. C'est ainsi que chez une accouchée réduite à un état d'anéantissement complet par suite d'une métorrhagie arrivée le septième ou le huitième jour, nous la conseillerions ; dans ce cas, il nous semble, qu'avant de se préoccuper des résultats indirects que peut avoir la transfusion, il faut faire face à un péril imminent qui est l'extinction vitale. Les dangers à venir peuvent être écartés par d'autres moyens, le danger présent ne peut l'être qu'à une condition, et on doit la remplir. Il en sera de même pour les suites des *hémorrhagies passives*. Parmi celles-ci, nous rangeons certaines formes d'épistaxis, d'entérrhagies, qui ont des résultats foudroyants. L'extrême déperdition sanguine amène un état syncopal ; si le praticien n'a point l'espoir de ranimer la vie par les moyens ordinaires, pourquoi, alors, n'userait-il pas de la transfusion ? Dans l'anémie extrême, suite de blessures, l'opération aurait été quelquefois pratiquée sans avoir pu conserver la vie. Elle trouve cependant dans cette circonstance son indication. Peut-être, dans les opérations infructueuses, s'agirait-il de sujets dont le système nerveux aurait été violemment troublé par la cause traumatique ? peut-être s'agirait-il de plaies d'armes à feu, où l'excitation nerveuse joue un rôle si considérable ? C'est là un point de la question qu'il est important d'approfondir de nouveau.

II.—DU SANG A INJECTER.

A. Chez l'homme, il faut du *sang humain* ; la question est tranchée. A défaut, même de ce que nous savons sur la plasticité du sang qui diffère de l'homme aux animaux, sur la forme et le volume des globules qui

ne sont pas les mêmes dans toute l'échelle animale, le bon sens suffirait.

B. Une fois résolue cette première question, il n'y a plus lieu de se demander lequel du *sang artériel* ou du *sang veineux* mérite la préférence. Ouvrir l'artère à une personne qui se dévoue, l'exposer aux accidents d'une pareille blessure, quel chirurgien voudrait le faire ? Ce serait inhumain. L'avantage, d'ailleurs, qu'on retirerait du sang artériel serait par trop minime, puisque les expériences sur les animaux de même espèce ont également réussi avec le sang noir qu'au moyen du sang rouge. La différence ne devient sensible que si l'on opère sur des espèces éloignées. Si l'on transfuse, comme l'a fait Bischoff, du sang de mammifère à des oiseaux, le sang veineux les tue sur l'heure ; le sang artériel les laisse vivre.

C. *L'âge*, le *sexe*, bien que n'entraînant pas des différences majeures, sont néanmoins cause de quelques variations qu'il est bon de connaître.

D'après M. Denis, de cinq mois à quarante ans, le chiffre des globules augmente et la quantité d'eau diminue ; de quarante ans jusqu'à la mort, c'est le contraire : la proportion de l'eau s'accroît, celle des globules diminue. Et comme conclusion, le sang d'une personne adulte qui n'a point quarante ans doit être préféré, puisque les globules sont regardés à juste titre comme la partie vivifiante du sang.

D'un sexe, à l'autre, la composition du sang n'est pas rigoureusement la même : chez l'homme, il y a plus de globules ; chez la femme plus d'eau, plus d'albumine. La fibrine est égale. Voici, au reste, les chiffres de cette différence, tels que nous les devons aux remarquables travaux de MM. Becquerel et Rodier.

SANG.	HOMMES.	FEMMES.
Eau.....	779	791
Globules.....	141,1	127,2
Fibrine.....	2,2	2,2
Albumine.....	66,4	70,5

En tenant compte des chiffres précédents, et sans nier que la transfusion entre personnes du même âge et du même sexe ne soit très-rationnelle, ne pourrait-on pas dire : Le sang de l'homme adulte mérite la préférence pour la transfusion à une femme ; il la mérite à plus forte raison si c'est un homme qu'on opère ? En effet, puisque le sang de l'homme est plus riche en globules et que la proportion d'eau est moindre que chez la femme, il est donc plus vivificateur ; sous le même volume, il peut donc fournir plus d'éléments réparateurs à un organisme appauvri. La fibrine, il est vrai, ne varie pas pour les deux sexes ; mais l'albumine, ce principe coagulable si voisin de la fibrine qu'on redoute, est en moindre quantité. Notre tendance, on le voit, à conclure que le

sang de l'homme adulte, en règle générale, vaut mieux pour la transfusion, est suffisamment motivée.

Le sang doit provenir d'un individu sain. En agir autrement, ce serait méconnaître une vérité évidente ; ce serait rechercher des causes d'insuccès.

D.—La *quantité* du sang injectée, dans les cas récents dont les détails nous sont connus, est en moyenne, pour chaque malade, de 240 grammes, le *minimum* étant de 90 grammes (Marmonier) et le *maximum* de 480 grammes (Simon). En général, deux à trois cents grammes doivent suffire, si l'on veut être prudent, si l'on tient à ne pas fausser les indications de la transfusion ; car enfin, comme le dit M. le professeur Bérard, avec le sens élevé et le savoir qui le distinguent, "il n'est pas nécessaire de rendre à un animal ou à un individu quelconque, qu'une hémorrhagie a rendu anémique et plongé dans un état de mort apparente, autant de sang qu'il en a perdu. L'indication urgente est de remettre en mouvement des rouages qui ont cessé de fonctionner, afin que l'individu qui a été soumis à la transfusion puisse ensuite former du sang par sa propre activité." (P. Bérard, t. III, p. 216.)

E.—La *défibrination* du sang doit être rayée des procédés opératoires, bien que Muller la propose en invoquant les expériences de MM. Prévost et Dumas, Dieffenbach, Lischoff, qui ont pu rappeler à la vie des animaux par l'infusion d'un sang défibriné. Les dangers que fait naître la fibrine sont-ils donc imminents autant qu'on le suppose ? La séparation de ce principe du sang est-elle en réalité sans inconvénients ? Notre conviction est que la transfusion, réduite aux proportions qui lui conviennent, doit être pratiquée avec du sang naturel, et tourmenté le moins possible.

La défibrination du sang a trouvé récemment un interprète éloquent dans M. Monneret, alors qu'au sein de l'Académie de médecine il donnait la relation du cas qui lui appartient.

"Le sang, dit M. Monneret, cesse de posséder ses propriétés normales dès qu'il a abandonné le vaisseau qui le renfermait. La fibrine n'est plus dans son état de dissolution parfaite ; elle commence immédiatement à se séparer sous forme d'un liquide blanc et brillant. On ne l'aperçoit pas encore à l'état solide et sous la forme d'un caillot limité et distinct qu'elle prendra plus tard ; elle ne constitue alors qu'un vaste réseau aussi volumineux que le sang lui-même, parce qu'il n'est pas encore contracté et réduit à sa plus petite dimension ; mais on peut affirmer que cette propriété si remarquable qu'a la fibrine de se contracter existe dans les gouttelettes du sang qui vient de sortir du vaisseau. Il est facile de comprendre le danger auquel expose cette solidification rapide que rien ne peut faire éviter, si ce n'est le battage opéré avec le sang extrait

de la veine. Cette fibrine, en passant dans les vaisseaux, ne tarderait pas à y provoquer des obstructions mortelle." (Gaz. Méd. 1851 page 665.)

Si la fibrine se sépare immédiatement quand le sang est reçu dans un large vase à la température ambiante, à coup sûr il n'en est plus de même si le vase est profond, s'il est chauffé à $+40^{\circ}$ centigrades ; ces deux conditions retardant la formation du caillot, ralentissent forcément la coagulation de la fibrine qui en est la cause première. L'essentiel est que ce retard soit assez long pour permettre que le sang étranger arrive encore liquide dans les veines de la personne malade, qu'il y soit perdu dans la masse du sang qui reste, et que cette fibrine qui tend à se coaguler soit divisée à l'infini.

Or cela est possible, puisque la transfusion a réussi sans causer d'accidents ; cela se retrouvera d'autant mieux, qu'on aura le soin de n'injecter que juste assez de sang pour maintenir les fonctions organiques. En fait, ces obstructions mortelles, dont on nous fait une peinture si noire, sont moins fréquentes qu'on ne le suppose. La raison en est que la quantité de fibrine étrangère qui passe au travers des poumons, dans un temps donné, est très-minime, surtout si l'on prend soin, nous ne saurions trop le répéter, de ne jamais transfuser que peu de sang et d'aller doucement.

" En défibrinant le sang, dit plus loin M. Monneret, on se prémunit contre ce funeste accident (obstructions), mais on ne fait encore pénétrer dans les vaisseaux qu'un sang altéré." (*Loc. cit.*)

Nous sommes du même avis sur ce point, et nous n'en concluons que mieux contre la défibrination du sang.

" Lorsqu'on retire la fibrine du sang, ajoute encore M. Monneret, les globules ne subissent pas une altération plus marquée que si l'on employait du sang pur et avec ses divers éléments." (*Loc. cit.*)

C'est ce qu'il faudrait démontrer. Nous trouvons inadmissible que les globules ne s'altèrent pas par le battage, quand tout à l'heure M. Monneret insistait sur l'altération du sang au sortir du vaisseau. Que le microscope, l'analyse ne démontrent rien, c'est possible ; mais si le sang reçu dans un vase inerte est réputé *cadavre*, nous pouvons bien soutenir que des globules battus sont des globules *tués*.

En résumé, la défibrination enlève au sang un élément dont on peut très-bien se garantir ; en second lieu, elle le dénature au point que ce n'est plus du sang que l'on transfuse, mais seulement une infusion médicamenteuse que l'on pratique. Elle doit donc être repoussée.

F. Les sels de soude et de potasse, comme on le sait, peuvent empêcher la coagulation du sang. Il suffit de 14 parties de sulfate de soude pour retarder de plusieurs heures la coagulation de 1,000 parties de sang ; le carbonate de soude produit le même effet à une dose moitié

moindre. De prime abord, on pourrait croire qu'en vertu de cette propriété les sels de soude et de potasse sont d'un usage commode pour la transfusion ; au fond, il n'en est rien. Ils restent sans utilité par la facilité qu'on a de devancer la coagulation et de terminer l'opération en toute sécurité ; ils ne sont pas sans danger, puisqu'ils diminuent la plasticité du sang et augmentent dans les mêmes proportions les tendances aux hémorrhagies.—*Gazette Médicale de Paris.*

(*La fin au prochain numéro.*)

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

On sudden death in the puerperal state. By ALFRED H. MCCLINTOCK, M. D., F. R. C. S. I., Ex-Assistant of the Dublin Lying-in-Hospital.

It may be asserted, without fear of contradiction, that the subject of death from sudden or latent causes in one which claims the deepest attention of the physician and the medical jurist. At any time the occurrence of this casualty excites painful and universal interest : but under no circumstances does it create feelings of such profound regret and dismay to all parties concerned as when it happens to a newly-delivered woman, and I question whether a man can meet with any reverse in his practice which so seriously or so unjustly prejudices his character in the estimation of the public.

Professor Meigs, in his treatise upon Obstetrics, has made the following remark :—" A woman lies down on the *lit de misère*, in order that she may give birth to a child ; an attack of puerperal fever too often converts it into her bed of death. A man goes to his bed in fever under the apprehension of approaching death ; he is *rescued* by the physician, but the accouchée who perishes is *lost*. There is a great difference in the sentiment connected with the cases." Now, if this observation be true of a death in childbed from obvious and progressive disease, and where the fatal result has from the first been apprehended, with how much more force does it apply to the cases of rapid and unexpected death in childbed ? Occurrences of this kind happily are rare ; but they are long remembered, and the panic they give rise to spreads far and wide, to the no small disparagement of the medical attendant's reputation. The records of innumerable examples of this fatal accident are to be found scattered through the periodicals and other works on medical literature ; but notwithstanding their confessedly obscure nature, and the interest with which they are invested, no one, so far as I am aware, has made any attempt at collating them, or putting together in a connected,

tangible form whatever fragments of information we possess on this most important subject. This, sir, constitutes the only apology I can offer for bringing the present communication under the notice of the Surgical Society. In it I shall endeavour to lay before you some at least of the causes which experience would seem to show were adequate to the sudden destruction of life in the puerperal state. In justice to the late Dr. J. Ramsbotham, it is right to state that he is the only author I can find who has given a distinct consideration to this subject. In the *Medical Repository* for 1814, he published some cursory observations "On sudden Death after Delivery," and these, with a few additions, re-appeared in his "Practical Observations upon Midwifery," under the title of "Collapse after Labour." He relates four instances from his own practice of death taking place rather suddenly and without any very manifest cause soon after delivery. His remarks, however, do not tend to throw any light upon the pathology of this accident, and of the four cases which he recites one only was examined post-mortem, but without yielding any positive result.

Writers on medical jurisprudence recognize three diseases which may rapidly extinguish life and leave no morbid appearance, and these are, the simple apoplexy of Dr. Abercrombie, syncope, and the asphyxia idiopathica of M. Chevallier. No unequivocal example of the former in a puerperal patient has come to my knowledge, but of the two latter some instances may be adduced. * Idiopathic asphyxia "causes death almost instantaneously, or in a few minutes, or sometimes not for an hour and a half. The symptoms are those of fainting merely, and the only appearance in the dead body is flaccidity of the heart, with an unusual or total want of blood in its cavities." (Christison.) A very instructive example of this mortal affection has been recorded by Professor Beatty. The subject of it was a healthy woman, aged 40, who was in the ninth month of pregnancy. She complained first of weakness and sick stomach, and almost immediately after fell back dead. He examined the body with the utmost care, and the appearances disclosed were such as directly led to the conclusion, that the cause of death was idiopathic asphyxia.

M. Chevallier's original paper on the disease was published in the first volume of the *Medico-Chirurgical Transactions*, and he there narrates an example of sudden death from this cause in the person of a lady who had given birth to twins about three hours previously. He himself

* It may be remarked here, that some very competent authorities look upon the mortal affection described by M. Chevallier, as merely a form of syncope; and certainly very strong evidence can be adduced in support of this opinion.—(Vide Dr. Wright's "Pathological Researches on Suffocation and Syncope:" London, 1850.)

conducted the post-mortem examination of the body, and from what he there found he inferred that death could only be attributed to this peculiar species of asphyxia. The same author also cites from Morgagni a case of rapid death in childbed, in which the necroscopic appearances led him to think that the woman's existence was terminated from the same cause. I am much indebted to the kindness of Mr. Barker, of Cumberland street, for the permission to mention here the circumstances of two cases that came under his own observation some years ago, which serve very forcibly to illustrate this part of my subject. In each of these cases death took place quite suddenly and unexpectedly, not very many days after delivery. In both instances a coroner's inquest was held, which was the occasion of Mr. Barker's knowing anything about them. As may be well supposed, he submitted the bodies of these women to a very extensive and close scrutiny, but he failed in discovering anything to account for death, except an unusual flaccidity of the heart, with a complete absence of blood in its cavities. We may fairly conclude with him, therefore, that dissolution was the result of idiopathic asphyxia, or of some cognate syncopal affection.

These cases require no comment. The evidence they contain of death having been produced by the operation of a cause similar to that pointed out by M. Chevallier, is to my mind conclusive. That there are not more instances of the kind to be found recorded, may, in some measure, be accounted for by the attention of observers being too exclusively directed to the abdomen in their examination of these cases post-mortem; and, secondly, from the fact of the subject of M. Chevallier's paper not having been as generally known and understood as it ought to be. If the actual possibility of such a cause of death as this be admitted, there is no reason that I can see why a puerperal woman may not be the subject of it. Further, if we look upon the idiopathic asphyxia of M. Chevallier as nothing more than a variety or form of syncope, the liability of its invading a woman in childbed becomes still more apparent from the state in which her constitution is left by the act of parturition—a state of which the prominent characteristics are, an unusual proclivity to diseased action—an excitable condition of the vascular, and a morbid susceptibility of the nervous system. The shock of labour is not recovered from for many days, and during this period (the length of which necessarily varies under different circumstances) the *vis vitæ* is minus: hence any impression of a severe kind, whether affecting the mind or body, is not met by the same vital resistance as at other times. With these well-known facts before us, there need be little hesitation in our drawing the conclusion that many of the unexplained cases of sudden death in the puerperal state are to be ascribed to idiopathic asphyxia, or fatal syncope.

Under the head of "Dystocia Syncopalis," Dr. Merriman gives the following history:—"An accoucheur was once attending a young woman in labour of her first child. Soon after it commenced, and during his absence, she fainted without any obvious cause. On his return the circumstance was mentioned, but as by this time she appeared perfectly recovered, no further notice was taken of it, and she was safely delivered without any other unusual symptom. On the third day after delivery she took a dose of some aperient medicine, and while in the act of relieving herself fell back and immediately expired. Probably no care would have prevented this unfortunate event. It was perhaps inexpedient to give the patient a purgative under such circumstances, a clyster would have been a more appropriate remedy, and at all events an erect posture should have been strictly forbidden."

Let us now pass on to the consideration of some of the other reputed causes of this catastrophe. It is an acknowledged law that protracted pain exhausts the principle of life, and in this way it is attempted to account for some of the anomalous cases of speedy dissolution after delivery. Touching this point, Mr. Travers has given some observations which it would be culpable to omit, coming from so high an authority. "Pain," says this author, "when amounting to a certain degree of intensity and duration, is of itself destructive. Difficult and protracted parturition is every now and then fatal from this cause; and even in cases in which neither extraordinary difficulty nor protraction was experienced, a fatal prostration has sometimes supervened which has admitted of no other explanation. The delivery has been complete, without any degree of physical injury, and not more than an ordinary quantity of blood has escaped from the vessels of the uterus. Yet the woman, in spite of the encouragement derived from the consciousness of safety to herself and infant, and of comfort from the conclusion that her sufferings were at an end, has never rallied either in strength or spirits; but after an interval, not exceeding a few hours, passed in a low and sinking state, has unexpectedly, and with little perceptible alteration, expired." (Inquiry, 2nd ed., p. 48.)

In a large proportion of the cases where this state of prostration or collapse has manifested itself, there had existed for some time previously a strong mental impression or foreboding of disaster, which presentiment, as it is termed, must have contributed materially in bringing about the fatal result. That a lengthened occupation of the mind by one dominant idea of a gloomy character should exercise a marked depressing influence upon the vital energies, is a fact of which every physician is fully aware, and of which there are innumerable examples on record. "I am well convinced of the fact," says Dr. J. Ramsbotham, "that the existence of

a permanent despondency during the latter stages of pregnancy has a powerful influence in diminishing the beneficial agencies of those powers by which the necessary changes subsequent to labour are completed." (Pract. Obs., p. 119.) Mr. Travers even goes so far as to admit that among newly-delivered women "cases have undoubtedly occurred, demonstrative of the fatal effect of this depressing cause;" and in illustration he relates two cases, one of which may be here quoted:—"A young lady, happily married, impressed probably by some unexpectedly fatal occurrence in the circle of her friends, entertained, from the commencement of her pregnancy, a morbid fear of death in childbirth, which, although unwarranted by any indication, became, from its continuance and increasing strength, a source of anxiety to one of her immediate and confidential relatives. She was attended by a skilful and experienced accoucheur, who was also her relation. He assured me that the labour was in all respects easy and safe, and that not a single unfavourable circumstance attended it. The child was still born and imperfect. The mother died suddenly in six hours after delivery. Every region of the body was examined with care by an eminent anatomist, and presented the appearance of health." Many other examples of a similar nature could be brought forward were it necessary for my purpose, or did time permit.* One case, however, of recent occurrence, I must here relate, as it cannot be so appropriately introduced elsewhere. My best thanks are due to Dr. Gartlan, of Dundalk, for favouring me with the notes of this case, and also for the permission to lay them before the Society. Although the history is imperfect in so far as there was no examination of the body after death, still it is deeply interesting, and may serve to illustrate some of the pathological features of this melancholy class of cases:—"The late Mrs. K., aged 35, was confined of her first child, a live girl, on the 16th of March, 1850, after a tedious labour, which I had to terminate with the forceps. She recovered well, and after nursing for about four months, again conceived. Towards the end of her pregnancy she became full of apprehensions and fears for the result of her illness. She expected her accouchement in May, and about the middle of that month her anxiety and alarm so much increased as to require my paying her a morning and evening call, though in every other respect her health was perfectly good. On the evening of the 26th she felt more than usually uneasy and nervous, and early the following morning she awoke from a sound sleep, in pain, and after a very brief illness gave birth to a large and healthy girl. In three quarters of an hour after the expulsion of the child, she had a gush of about eight ounces of blood,

* The uncle of Dr. Merriman, the author, once met with a very striking instance of the fatal effects of violent mental emotion in a parturient woman.

whereupon I immediately removed the placenta which was lying in the upper part of the vagina. She then seemed as well and as free from all uneasiness or hæmorrhage as any patient could be, and continued so for about an hour, when she reiterated her forebodings that "something bad might still happen." In about half an hour from this she complained of pains like after-pains, and felt getting weak, so that I gave her some sherry and water, and at her own request a little brandy. Being apprehensive of hæmorrhage, I made a most careful examination, and satisfied myself there was no bleeding outwardly, nor into the cavity of the uterus, which was perfectly contracted. This examination I repeated several times subsequently. In spite of an opiate the spasmodic pains persisted, and the abdomen began rapidly to swell, accompanied with oppression of the breathing. I then applied a turpentine stupe to the belly, administered an enema, and gave a stimulating carminative draught, containing ether, laudanum, and aromatic spirits of ammonia. No improvement followed this treatment; on the contrary, the tympanitic distension of the abdomen had proceeded to such an extent that the patient exclaimed she would burst unless relieved. This induced me to send to my house for the long rectum tube. At this period Dr. Brunker gave his valuable help in the case, and we introduced the tube, and repeated the stimulants, but all to no purpose, as she was visibly sinking, the act of respiration being seriously impeded by the enormous bulk of the tympanitic abdomen. She expired six hours after delivery, and four from the first sensation of pain and distension." Such is Dr. G's history of this case; he has appended a few observations which I think it well to read. "I am fully convinced that hæmorrhage could have had nothing to do with this lady's death, as there was none externally, and both Dr. Brunker and myself repeatedly ascertained that the uterus was well contracted, thus showing there was none internally. She was a very fat person, of a nervous leucophlegmatic habit, she occasionally had complained of some pain in her left side, but never evinced any symptom of heart disease. During the menstrual periods, she had always been affected with great gaseous distension of the abdomen. The most remarkable feature, however, in her history was the strong presentiment she entertained for some time before her labour that she would not survive it. The mother of this lady, I may remark, died rather suddenly two or three days after her birth; and the knowledge of this fact very much fostered, if it did not actually give rise to, the long train of dark anticipations which possessed her mind for so many weeks before the occurrence of labour." It is sufficiently plain, I think, that the mere loss of blood in this case was not *per se* sufficient to destroy life, as the labour was rapid and easy. After a protracted and difficult labour, it is surprising how small an amount of

hæmorrhage will occasionally prove fatal ; in illustration of which I would beg leave to narrate the facts of a case which was communicated to me within the last few days. It occurred to Dr. Cuppaidge, of Castlereagh, who obligingly favoured me with its history. It is as follows :—" In the beginning of last month I was sent for one morning at ten o'clock A. M., to see Mrs. C., a farmer's wife, who was the mother of five children, and of rather delicate constitution. Her last labour had been very tedious, and was terminated by instrumental assistance, the forceps I believe. On my arrival I learned that she had been in strong labour for three days and nights. She seemed much exhausted and was perspiring freely, with a feeble rapid pulse. The pains were frequent and violent, the foetal head was pretty low in the pelvis. After waiting some time, and seeing that the child made no advance, I applied the forceps, and extracted it with ease, but not in time to save its life. The placenta came away in a very few minutes, and I put on the binder tightly. In about a quarter of an hour, observing her to yawn and appear restless, I examined if there was any discharge, and put my hand over the uterus. It felt rather relaxed, and on making pressure it contracted, expelling a small quantity of blood. By this she seemed improved, but in about twenty minutes began again to sigh, and yawn, and toss her arms about, which made me grasp the uterus more forcibly, whereby a few coagula were dislodged. Symptoms of prostration, with extreme restlessness, dejection of countenance, and rapid intermitting pulse, now began to develop themselves, and though I gave her abundance of burnt whiskey—the only stimulant procurable—she continued to sink, and expired an hour and a half from the time of delivery. I can safely say the whole amount of hæmorrhage in this case did not exceed what I have repeatedly seen to occur in other patients, without producing the slightest symptom of weakness or syncope."

[To be continued.]

OPHTHALMIC AND AURAL SURGERY.

On the Treatment of Polypi of the Ear. BY JOSEPH TOYNBEE, ESQ., F. R. S., Fellow of the Royal College of Surgeons of England, Aural Surgeon to St. Mary's Hospital, and Consulting Surgeon to St. George's and St. James' General Dispensary.

(Continued from page 58.)

THERE are two other directions that it is important to bear in mind. 1. The surface of the polypus is sometimes rendered so dry by means of the cotton-wool, that there is not sufficient moisture to

SCIENTIFIC INTELLIGENCE.

...the escharotic (especially when containing iron) to deliquesce ;
...part of the potassa cum calce is, under these circumstances, to be
...moistened. 2. Should the patient experience pain at the time
...the application, or during the few minutes afterwards, the ear should
immediately be syringed with tepid water,—the effect of which is at
once to remove all painful symptoms, and to arrest the action of the
escharotic.

GELATINOUS POLYPUS.

Next in frequency of occurrence to the vascular polypus is the one which has been termed the gelatinous polypus. This name has been given to it from the soft jelly-like appearance presented by its free portions, and from the similarity of their general aspect to the gelatinous nasal polypus. Careful and minute examination, especially when aided by the microscope, does not, however, confirm the propriety of the above designation ; on the contrary, as it will be seen in the course of my observations, the term fibro-gelatinous polypus would be applied to it with much greater propriety, and to the variety hitherto called the vascular polypus perhaps the term cellular will be most fitted.

STRUCTURE OF THE GELATINOUS POLYPUS.

This growth generally increases to a large size. I have specimens in my collection which vary from being as large as the last joint of the little finger to the size of a small nut. Sometimes this polypus has a single root and body, but more commonly two or more bodies have a common base. The root, which is attached to the wall of the meatus, is generally not larger than from a line to two lines in diameter. Examining the polypus as it approaches the orifice of the meatus, it will be found that, attached near to the root, are numerous small rounded growths, very much like to delicate granulations ; these appear to be the rudimentary growths, confined to their small size by the pressure exercised upon them by the walls of the meatus and the large expanded part of the outer portions of the growth. Approaching the orifice of the meatus, the polypus assumes a globular form, and consists of from one to as many as six or eight rounded heads. When these heads are numerous, they present pedicles, varying in length from a quarter to half an inch, by which they are connected to the root. The surface of this polypus is smooth, and it is constituted by a layer about a quarter of a line thick ; this is separated from it by maceration, and it consists of cells having every resemblance to those of the epithelium covering the buccal mucous membrane. This layer of epithelium is as thick and white as ordinary writing-paper, and, when detached and floating about, it keeps

the forms of the polypus from the surface of which it has been separated. The interior of the gelatinous polypus is composed of corpuscles and fibrous tissue; the proportions of the two elements vary in different specimens, but the fibrous tissue generally predominates. The corpuscles are of a rounded form, and they vary both in size and shape. In a specimen, which was a good example of this variety of polypus, as it is generally presented to the surgeon (it being white and soft, so as to be easily compressible by the thumb and finger,) I found that these cells varied in shape from being quite round to an irregular oval,—from being the size of a blood corpuscle to one half or even one quarter the magnitude of that body,—the greater number appeared certainly smaller than the blood disc; but they presented every variety of size between that of a blood disc and a fine granule, and there was very little symmetry in shape or size even between those that were nearest to each other. These cells are not generally in close contact, but they are separated by a delicate gelatinous substance, which is sometimes quite transparent and structureless; in other parts, where the polypus is resisting, these cells are separated by delicate, wavy bands, having the appearance of fibres, and to the surface of these fibres the cells are observed to adhere. In some parts, these wavy, gelatinous-looking fibres form almost the entire substance of the polypus; the rounded cells being scattered very sparingly, in other parts, these fibres are absent. The wavy fibres run in the long diameter of the polypus; they possess considerable toughness, and, although they are easily separated from each other, so that individual fibres can be isolated, they cannot be torn across without the use of considerable force. The single fibres are extremely fine; so that, when they are separated from each other, they have the appearance of transparent lines, whose diameter varies from half to a quarter of that of the blood disc. Interspersed through the substance of the polypus were many spindle-shaped crystals. Upon the application of acetic acid, the fibres became swollen, and assumed a confused, gelatinous appearance, and lost all their fibrous character; the corpuscles were also converted into a similar mass, in which, however, a large number of granules were observable. The action of the acetic acid also brought into view a large number of fine, spindle-shaped crystals, some of which only had been previously observed. The gelatinous polypus sometimes attains to so great a degree of hardness, that it is with difficulty cut through by a pair of scissors; this peculiar condition appears to be produced by the increase in quantity and solidity of the fibrous tissue, and in the diminution of the quantity of corpuscles, and in the absence of the gelatinous matter between them. It has been already stated, that the vascular polypus is composed of

rounded cells; these, however, differ very much from the cells of the gelatinous polypus, in being all of nearly the same size and shape, and in being larger than those previously described. The cells of this polypus do not appear to be separated by any substance, but they are agglomerated together, and form the entire mass of the polypus. The exterior, which is smoother than the gelatinous polypus, and which is always covered by its secretion, is composed of a layer of elongated epithelial cells, which are frequently terminated by ciliæ; the latter are often seen in active motion for a considerable period subsequent to the removal of the portion of polypus which they cover.

TREATMENT OF THE GELATINOUS POLYPUS.

The difference in the structure of the two kinds of aural polypi naturally prepares the surgeon to expect that the treatment requisite for their removal would also differ. This is undoubtedly the case. The use of the *potassa cum calce*, which has proved of so great value in the destruction of the vascular polypus, is of but little service in the treatment of the gelatinous, or, more properly speaking, the fibro-gelatinous polypus. The escharotic produces but comparatively slight effect upon fibrous tissue, and the only plan of removing it is by extraction. For this purpose, the best instrument is a pair of ordinary dressing-forceps, the ends of which should be reduced in size, so as not to be larger than from a line to a line and a half in diameter. These forceps should be introduced into the meatus to the distance of half or three quarters of an inch, and the polypus seized as near as possible to its roots; the forceps should then be used as a lever, the outer part of the ear being the fulcrum, and the polypus turned out of the cavity. But little force is required, and, as a general rule, the diseased growth is removed without difficulty in an entire state. Upon examining the meatus after its removal, the surface to which it was attached is distinctly discernible, and, for a short time, there is a slight oozing of blood from it. In some cases portions of the root of the polypus remain, but they do not, generally, require any further treatment, but gradually atrophy and disappear. On the contrary, if any of the small globular bodies remain attached to the root, they rapidly increase, and the diseased growth has again to be submitted to operation. The removal of the fibro-gelatinous polypus is generally productive of relief, not only to the unpleasant head symptoms, which are caused by its pressure on the contents of the vestibule, but to the diminished power of hearing. The improvement in the power of hearing does not, however, as would be supposed, take place at once; on the contrary, it not uncommonly occurs that there is, at first, no increased power of hearing, but that it gradually and very

slowly improves. This may, perhaps, be accounted for, from the circumstance, that the polypus has for a long period exercised considerable pressure on the membrana tympani, or, where that structure no longer exists, upon the tympanic ossicles, and that these organs only slowly return to their natural state.

GELATINOUS POLYPUS IN THE LEFT EAR FOR SEVEN YEARS; IN THE RIGHT EAR FOR ONE YEAR—NOISES IN THE RIGHT EAR—GIDDINESS UPON PRESSURE OF THE POLYPUS—CURE BY EXTRACTION, FOLLOWED BY THE APPLICATION OF ALUM AND CHLORIDE OF ZINC.

Case 4.—Harriet Wenlock, aged 58, a washerwoman, strong, rather stout, and in good health, with the exception of the symptoms produced by the polypus, consulted me in the commencement of April, 1850. She stated, that seven years previously, without any other symptoms, discharge issued from the left ear, and it has never disappeared; shortly after the appearance of the discharge a rounded body was observed at the orifice of the ear. About a year ago the right ear began to discharge, and there soon appeared a swelling at the outer orifice. She complains of great noises in the right ear; these vary much; sometimes they appear like a humming, at others like a tinkling of a bell, then as if it were loudly ringing. When the surface of the tumour of the left ear is pressed upon she feels giddy, and, if it is continued, she loses her senses and falls. At present, and for a considerable period has been so hard of hearing, that she requires speaking to very loud close to the head. Upon examination of the right ear, a round, pale-coloured polypus, more than half an inch in diameter, was observed to protrude from the orifice of the meatus, and below it was another growth about half the size. At the external meatus of the left ear a rounded body was observable; this was not more than a line in diameter, and it did not extend beyond the orifice. Not finding any symptoms which indicated an affection of the bone, I thought it better at once to remove the polypi, and selected the right ear to commence upon. The diseased growth was removed with the greatest ease by the use of the dressing forceps, in the manner above described; the patient suffered only a slight but momentary pain, and there was a very trifling oozing of blood. Upon examination after its removal, the polypus was found to consist of the two rounded heads already noticed, each having a second mass about half the size, continuous with it, and extending nearly as far as the root; the latter was very narrow, not being more than a line or a line and a half in diameter. The surface of the expanded part of this polypus was found to be covered by flat scales, like those of epidermis, but

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GELATINOUS POLYPUS IN THE LEFT EAR FOR SEVEN YEARS ; IN THE RIGHT EAR FOR ONE YEAR—NOISES IN THE RIGHT EAR—GIDDINESS UPON PRESSURE OF THE POLYPUS—CURE BY EXTRACTION, FOLLOWED BY THE APPLICATION OF ALUM AND CHLORIDE OF ZINC.

Case 4.—Harriet Wenlock, aged 58, a washerwoman, strong, rather stout, and in good health, with the exception of the symptoms produced by the polypus, consulted me in the commencement of April, 1850. She stated, that seven years previously, without any other symptoms, discharge issued from the left ear, and it has never disappeared ; shortly after the appearance of the discharge a rounded body was observed at the orifice of the ear. About a year ago the right ear began to discharge, and there soon appeared a swelling at the outer orifice. She complains of great noises in the right ear ; these vary much ; sometimes they appear like a humming, at others like a tinkling of a bell, then as if it

rounded cells; these, however, differ very much from the cells of the gelatinous polypus, in being all of nearly the same size and shape, and in being larger than those previously described. The cells of this polypus do not appear to be separated by any substance, but they are agglomerated together, and form the entire mass of the polypus. The exterior, which is smoother than the gelatinous polypus, and which is always covered by its secretion, is composed of a layer of elongated epithelial cells, which are frequently terminated by ciliæ; the latter are often seen in active motion for a considerable period subsequent to the removal of the portion of polypus which they cover.

TREATMENT OF THE GELATINOUS POLYPUS.

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nearer to the root, elongated cells, armed with ciliæ, were also distinguished. The rounded parts which were exposed to the air were smoother and whiter than those which were concealed, the latter presenting a somewhat rugous surface. On April 22, a fortnight after the removal of the polypus, upon examination, the quantity of the discharge was greater than usual, and there was observed to be a rounded growth near to the membrana tympani, as if the roots of the polypus still remained; to this substance a solution, composed of half an ounce of alum to two ounces of water, was ordered to be applied thrice daily. The polypus was removed from the left ear; it consisted of a pedicle, a body, and three rounded heads, two of which had been seen at the orifice of the meatus during life.

April 29.—The power of hearing is improved; has had slight pain in each ear, also some giddiness. The discharge is less abundant, but still of an offensive odour. In the right ear the remnant of the polypus is seen attached to the upper part of the meatus, near to the membrana tympani; in the posterior part of the latter an orifice was observed. In the left ear the roots of the polypus appeared to fill as much as one half of the meatus. The drops of the solution of alum to be continued.

May 6.—*Right Ear*.—The discharge has ceased; the hearing has improved, and is much better after blowing the nose. The polypus has wholly disappeared; the mucous membrane of the tympanum is seen through the orifice of the membrana tympani; it is thick and red.

Left Ear.—The roots of the polypus are much in the same state.

May 13.—The roots of the polypus in the left ear remain as a week ago. Applied the chloride of zinc to their surface.

May 27.—*Left Ear*.—Polypus smaller; again applied the chloride of zinc.

June 24.—Discharge from left ear gone. The polypus much diminished in size. Air passes through the left membrana tympani. The solution of alum was continued; and in a fortnight the polypus had wholly vanished.

GELATINOUS POLYPUS CURED BY EXTRACTION—HEARING POWER IMPROVED.

Case 5.—J. W., Esq., aged 24, a medical student, pale and not strong, consulted me on the 24th of October, 1851, on account of a very considerable degree of hardness of hearing so that he was obliged to be spoken to at a distance not further than a foot from his head; he also had an abundant discharge from the left ear. The history of the case was, that twelve years ago he had an attack of porrigo, for which the head was shaved; during this attack, he was very deaf in both ears; but he

quite recovered. A year ago he became slowly dull of hearing in the right ear; and for eight months the left ear has been gradually losing the power of hearing. Has had pain in the left ear lately, attended by discharge; the latter varies much in quantity, and has a very offensive odour. Upon examination, the hearing distance of the right ear with my watch was only half an inch; the surface of the membrana tympani was dull, and its substance opaque.

Left Ear.—Watch only heard when pressed upon the ear. A polypus filled the meatus and extended as far as the orifice of the meatus. This polypus was removed by the forceps in the manner already described, and the power of hearing slowly improved.

GELATINOUS POLYPUS REMOVED BY FORCEPS, AND POTASSA CUM CALCE APPLIED TO THE ROOTS—CURE.

Case 6.—Miss E. H., aged 26, consulted me on 4th April, 1851, on account of a discharge from the right ear. The history of the case, as detailed me, was, that, at the age of 16, she had an attack of scarlet fever, accompanied by pain in both ears, but especially in the right. The pain in the right ear was followed by a discharge which has continued up to the present time, with the exception of one occasion, on which it disappeared for a fortnight, when the pain was much increased. Upon examination a polypus of a leaden hue was observed to project from the orifice of the meatus; it was stated that this growth had been seen there during the four months preceding the application for advice, and that pressure upon it always produced giddiness. This polypus was found to be attached to the posterior and inferior part of the meatus, near to the membrana tympani. This growth was removed by means of the dressing forceps, and, as the roots had a tendency to increase in size, the potassa cum calce was applied once, and the growth was effectually destroyed.

(To be Concluded.)

De l'oblitération du Sac Lacrymal comme moyen de guérison de la Fistule Lacrymale; par M. STÖBER.

L'OPINION généralement répandue sur la cause de la fistule lacrymale est que l'inflammation du sac lacrymal provient de ce que les larmes y sont retenues. La conséquence de cette idée est qu'on guérit cette inflammation en détruisant l'obstacle qui arrête le cours naturel du fluide.

Sans vouloir établir l'innocuité de la stase des larmes dans la sac, M.

Stöber fait remarquer qu'on voit des personnes dont le canal nasal est obstrué pendant des mois et même des années, et qui peuvent, en comprimant le sac, faire refluer par les points lacrymaux du mucus limpide sans que leur sac lacrymal s'enflamme.

D'un autre côté, on a souvent vu le cours des larmes être rétabli par une opération, sans que pour cela l'inflammation chronique du sac, non plus que le larmolement, cessassent.

C'est que le larmolement ne dépend pas seulement de l'impossibilité qui existe pour les larmes de s'écouler dans le nez, mais aussi, et principalement, de ce que la phlegmasie du sac se propage à la conjonctive et de là à la glande lacrymale, dont la sécrétion, par suite, est augmentée.

S'il n'en était pas ainsi, si la majeure partie des larmes—à part les cas d'excitation plus forte—n'était pas évaporée ou absorbée à la surface de la conjonctive, l'occlusion complète du sac devrait certainement donner lieu à un larmolement continu. Or, bien au contraire, dans tous les cas où l'on a détruit le sac lacrymal, le larmolement, qui jusque-là avait existé, a cessé, excepté dans les circonstances où l'œil est irrité soit par son exposition au froid, au vent, ou au contact de corps étrangers, soit par l'inflammation ou l'excitation—de cause morale—de la sécrétion lacrymale.

La cessation du larmolement après la destruction du sac lacrymal s'explique si l'on admet que, dans l'état normal, la sécrétion des larmes n'est pas assez abondante pour donner lieu à un écoulement permanent dans les narines, et que, dans le cas de fistule lacrymale, il y a larmolement seulement, parce que l'irritation du sac se communique à la conjonctive et à la glande lacrymale et augmente la sécrétion de celle-ci.

Partant de ces principes, M. Stöber, après Delpech, Nannoni, M. Desmarres, etc., a traité une fistule lacrymale en cautérisant le sac lacrymal avec la potasse caustique. Le sac s'oblitéra complètement, et la malade, qui jusque-là avait été fatiguée par les récidives opiniâtres de sa fistule, fut complètement guérie. On la revit deux mois après l'opération, et elle affirma n'avoir jamais de larmolement que lorsque l'œil était exposé à un vent froid.

Quant au manuel opératoire, M. Stöber recommande d'inciser le sac, d'étancher les mucosités ou le pus qui le remplissent, puis de promener sur toute sa surface un crayon de potasse caustique, en ayant soin d'appuyer un peu plus sur la partie inférieure qui correspond à l'entrée du canal nasal.—On devra aussi, afin de garantir la peau voisine, n'introduire le caustique qu'à travers une canule peu profonde et assez large pour permettre de le porter librement sur toute l'étendue de la face interne du sac.—*Gazette Médicale de Strasbourg.*

MEDICAL JURISPRUDENCE.

Elimination of Poisons.

M. F. ORFILA, the professor's nephew, has read a paper before the Academy of Sciences of Paris, on the above subject. He states that a great number of poisons, after being absorbed, mix with the products of the various secretions, as urine, perspiration, saliva, gastro-intestinal fluids. All poisons do not pass into these secretions, but the majority of them may be discovered in the urine. It is rather a remarkable fact, that arsenic and iodine do not pass into the bile. These are the only substances which have hitherto been sought in that secretion; it is, however, probable, that the same results will be obtained when other poisons are thus tried. Noxious principles are gradually expelled from the body in the manner above described—some in a short time, as arsenic and mercury; but others may be detected in the substance of the viscera, four, five, and even eight months after their introduction. The more the urine carries off a poison, the sooner will the latter be expelled from the economy. Arsenic and mercury pass into the urine so early as the seventh day after their introduction into the system, and they are quite expelled in a few days. Lead and copper are not detected in the urine, and the entire expulsion of these metals does not take place for eight months.

When a poison is absorbed, very good service may be rendered by the use of diuretics, purgatives, and diaphoretics. Still, a poison may be lodged in the economy, without our being able to suspect the fact by the analysis of the urine. As that portion of the poison which has been absorbed gradually decreases up to a certain period, it is quite impossible, and even absurd, to attempt calculating the amount of the poison which has been administered by the quantity found in the viscera, putting other sources of error out of the question, such as vomiting, loss during experiments, &c.

It is an error to suppose, that because a poison remains a long time in the system, it will continue so for an indefinite period, for when nitrate of silver is administered to dogs, the metal may be found in the liver five months afterwards, but not after seven months. It must be supposed that the mercury, lodging so long in the viscera, becomes in some degree *tolerated* there. M. F. Orfila believes, with his uncle, that antidotes may do much good, and neutralize the action of certain poisons, even when the latter have already passed into the blood, the liver, spleen, &c., both by forming less poisonous compounds, and by giving rise to certain combinations, which are more easily eliminated.

Canada Medical Journal.

MONTREAL: MAY, 1852.

MEDICAL EDUCATION.

As the winter session has now terminated, it may not be out of place to make a few observations upon medical education, and the facilities presented for its cultivation in this city, as well as to point out some evils which we hope to see remedied before long.

If we examine the curriculum of the Licensing Boards of Lower Canada, we find that it is as extensive, and the time required for its completion as long, as those of the most celebrated Institutions of Europe. If we examine the condition of the Schools, we find that every branch of medicine is taught as fully and as completely as can be done in lectures, and that those engaged in the task of instruction, with few exceptions, have made their particular branches the subject of careful and special study, and that most of them are already experienced and well-known teachers, and those who have entered only recently upon this career, have been selected by their colleagues on account of their peculiar fitness for the office. We have also been informed that the lecturers of McGill College and the French School of Medicine have taken much pains with their classes, and have gone to much expense to procure means for illustrating their courses; we do know that each lecturer in the St Lawrence School of Medicine was bound to expend a considerable sum in procuring drawings, casts, diagrams, and preparations for the same purpose, and that many of them have far exceeded the stipulated amount.

Montreal now presents the interesting spectacle of a Colonial Town, aspiring to a position in medical reputation, and forms, at this moment, the commencement of a SCHOOL OF MEDICINE. Let us inquire if we actually possess the elements necessary to build up a medical reputation for our city? What are they? 1. Teachers, 2. Hospitals, 3. Schools, 4. Students, 5. A Medical Periodical, *independent of any party in the profession, or of any School or College*. Have we not all these? In what city of its size on this continent have we three incorporated Schools? In which have we three large Hospitals. As these advantages are of little use to the student unless the foundation of anatomy

be laid, we may ask, does any other city present as many or as ample opportunities for its pursuit as Montreal; assuredly not. But might he not avail himself more fully of these opportunities? To this point, we wish to direct the attention of teachers. At present the student is so much occupied by attendance upon lectures that he cannot devote as much time to practical anatomy and clinical study as the importance of these branches demand, and we see no remedy for it, but to alter the curriculum, so as to give but three lectures weekly on each subject, instead of five, or to give summer courses upon such subjects as clinical surgery and medicine, obstetrics, ophthalmic and aural surgery, medical jurisprudence, chemistry, materia medica, of which two 3-months' courses should be considered equal to one winter course: or to adopt the American plan of lecturing daily for four months, leaving the student the other eight months for hospital attendance, dissections and study. We are well aware we shall be told, that if the student follow the directions of his teacher, his study will be so distributed over the four years, as to leave him each winter, plenty of time for dissections and hospital attendance; but to this we answer, that McGill College exacts from students coming from other Schools, not merely an attendance on two courses of lectures, which is all that is necessary to constitute an *annus medicus*, but she compels the unfortunate candidate for her degree, to attend a full course of some ten lectures daily, commencing at 8 o'clock, A. M., and terminating at 8 o'clock, P. M., and as the last year of the student's pupilage should be devoted almost exclusively to practical study, this enactment prevents him becoming a practical man, he has no time for noting cases in hospitals, no time for attendance on practical midwifery, no time for dissections, his spare moments are divided between his illustrated manuals and the gentleman who presides over the *molendinary* department of his education. We repeat, we see no remedy for this evil, but the adoption of one of the plans we suggest, or the decision of the Licensing Boards, and more particularly of the College of Physicians and Surgeons of Lower Canada, to refuse recognition of attendance upon more than a certain limited number of lectures during each year of the student's pupilage, and to adopt such a method of examination as will detect the *crammed* student, and display his ignorance of practical surgery, medicine, and midwifery.

Rules for Bleeding in Pneumonia.—The following judicious remarks by Dr. Bennett, are perfectly in accordance with our own experience.—*Buffalo Medical Journal*.

“ If we are called to a case at a very early period before exudation is

poured out, and before dullness as its physical sign is characterized, but when, notwithstanding, there have been rigors, embarrassment of respiration, more or less pain in the side, commencing crepitation, then bleeding will often cut the disease short. This state of matters is rarely seen in public hospitals. When, on the other hand, there is perfect dullness over the lung, increased vocal resonance, and rusty sputum, then exudation blocks up the air-cells, and can only be got rid of by that exudation being transformed into pus, and excreted by the natural passages. In such a case bleeding checks the vital powers necessary for these transformations, and, as a general rule, if the disease be not fatal, will delay the recovery. I believe this to be the cause of so much mortality from pneumonia in hospitals where bleeding is largely practiced, for, in general, individuals affected do not enter until the third or fourth day, when the lung is already hepatized.—*Edinburgh Monthly Journal.*”

NOTE.—We copy the above passage, which is now going the rounds of the periodicals, not for the purpose of recommending the practice inculcated, nor to express our approval of the pathological doctrines advanced in its favour, but to show that neither the one nor the other is based on sound principles.

In the first place, we deny *in toto*, that the *stage* of pneumonia is a guide to blood-letting, and we aver, that from the beginning, many cases of pneumonia will not bear either general or local bleeding, but require to be treated by active counter-irritation, and stimulating expectorants and that others bear badly even tartar emetic, and would inevitably sink under blood-letting. We recollect having had thirteen cases of pneumonia under our care in one month, of these seven were examples of the sthenic, and six of the asthenic form; the first were treated on antiphlogistic principles, the second required stimulation by wine, stimulating expectorants and active counter-irritation, in some instances dry-cupping being also employed. All these cases recovered, and the duration of the disease was about equal in the two classes, yet the disease presented itself in the same degree in both forms of the affection—*i. e.* in some it was merely in the first, and in others, partly in the first and partly in the second stage. Our clinical observation in hospital and private practice, is quite at variance with the views advanced by Dr. Bennett, and we state it as the result of our experience, *that the question of bleeding ought not to be decided by the stage of the pneumonia, but by the condition (sthenic or asthenic) of the patient, and by the type of the inflammations prevalent at the period.* As an illustration of this, we may mention, that, in our practice at St. Patrick's Hospital, we have had to prescribe blood-letting more freely and more frequently of late, than we have done for

years, as nearly all the inflammatory affections have assumed a strongly marked sthenic character.

Nor do we agree that *perfect dullness* is ever heard over a hepatized portion of lung, *comparative* dullness, no doubt, is heard, but *perfect or absolute* dullness never. There are only two diseases involving the lungs, in which *complete or perfect dullness* is heard, and these are thoracic tumours (generally aneurismal or cancerous) and pleuritic effusion. Of the other signs named by Dr. Bennett, viz: *increased vocal resonance and rusty sputum*, the first alone is peculiar to hepatization, for rusty sputum is the product of *congestion and not of plastic exudation*, and, consequently, is common to the first, as well as the second stage of the disease, *for we never find the stages of pneumonia so well marked as that one lung shall exhibit in all parts the first stage, and another exhibit the second stage without any blending of these stages, or gradual transition from one to the other*. On the contrary, we always find an inflamed lung, which has passed on to hepatization, exhibit in various parts, the first or congestive stage of the disease, and we are not without evidence to satisfy us, that an *extensive* congestion is more destructive than a *limited* amount of hepatization, and, consequently, taking these pathological facts as our guide to treatment, we should not be deterred by the detection of solidification from abstracting blood, if other symptoms did not contra-indicate this measure. But Dr. Bennett forgets that one form of pneumonia, and, according to our experience, a difficult one to treat, or rather we should say, one in which recovery slowly takes place, is unattended with rusty expectoration, and in this variety we believe there is less congestion of the capillary tubes, and a greater tendency to plastic exudation than in other forms. We have made this point the subject of study for some years, but as yet have arrived at no *positive* conclusion; our impression is, that the explanation now given is the correct one. In this variety of the affection, we have found greater benefit from mercurial treatment, than from any other, and have been in the habit of taking *the presence of solidification without a rusty coloured expectoration*, as the index for its administration. In Dr. Bennett's directions, this form of pneumonia is overlooked. The objection to blood-letting, that it "checks the vital powers," necessary for the transformation of exudation matter into pus, is quite gratuitous. Is exudation matter never absorbed? Is a hepatized lung never restored to its original condition without the expectoration of pus? Is exudation on the pleura always followed by empyema? Is the lymph of iritis always followed by hypopium? When Dr. Bennett has answered these questions in such a manner as to square with his assertions and

to accord with well established pathological laws, we shall be prepared to discuss how fatal blood-letting may interfere with the cure of pneumonia, in which the plastic exudation is undergoing transformation into pus. But as we believe that the *material which causes solidification of the lung*, [as evidenced by increased dullness, bronchial respiration, bronchial voice, and absence of vesicular murmur, &c.,] may be, and daily is, removed by treatment, we are convinced that the means ordinarily used for that purpose, act with more certainty and success when the abstraction of blood *can* be performed, and that whilst it renders absorption of exuded matter more active, it checks the congestion existing in other parts of the lung, which would, in its turn, be quickly followed by hepatization and more serious disorganization of the lung. These are our reasons for differing from Dr. Bennett, and we make no apology for trespassing at such length on our readers' attention, as the matter has occupied much of our clinical study, and is withal, one of great importance to the practitioner. We may ask, in conclusion, is it not more likely that the large mortality from pneumonia in Hospital practice, alluded to by Dr. Bennett, arises from the indiscriminate use of the lancet in cases quite unsuited to any form of depletion, than from its being employed in the second stage of the disease? And is he right in stating that Hospital patients generally come under treatment when the disease is in the *second* stage? We have records of numerous cases where the disease had not passed beyond the first stage, occurring in Hospital patients, both in Europe and in this country. We must, therefore, question the truth of his statements, which, from beginning to end, we believe to be incorrect.—R. L. M'D.

ST. PATRICK'S HOSPITAL.

From the Quarterly Report, ending 30th April, it appears that the number of intern patients amounted to 211, and that of the externs to 306, making a total of 517 who received advice and medicine at the Institution during the last three months. We regret that our limits do not permit us to insert the diseases of the externs, many of which were of a very interesting and instructive character.

SURGICAL CASES.

Erysipelas.....			Sloughing of Integuments of Neck..	1
Simple 3	}	9	Paronychia.....	2
Phlegmonous 4			Rupture of Tendo Achilles.....	1
Edematous 2			Morbus Coxae.....	1
Abscesses.....		1	Nævus.....	1
Caries of Bones of Feet		1	Abscess of Parotid Gland.....	1
Caries of Bones of Hand.....		1	Anthrax.....	1
Scrofulous Ulcers.....		1	Cystitis, Chronic.....	1
Caries of Tibia.....		1		

Strictures of Urethra.....	4	Extensive Compound Comminuted	
Spinal Disease.....	1	Fracture of Bones of Foot.....	1
Synovitis of Knee Joint.....	2	Fistulous Ulcer of Breast.....	1
Concussion of Brain.....	1	Punctured Wound through Foot....	1
Prolapsus Uteri.....	1	Frost Bite.....	3
Cancer of Cheek.....	1	Ganglion.....	1
Cancer of Breast.....	1	Contusion.....	4
Encephaloid Tumour of the Neck...	1	Ulcers.....	7
Bubo.....	1	Anchylosis.....	2
Tumour of Parotid Gland.....	1	Phlegmonous Erysipelas of front of	
Fracture of Radius.....	3	the Neck, opening from Anterior	
Radius and Ulna.....	1	Mediastinum into Trachea.....	1
Femur.....	1	Hæmorrhoids.....	1
Scapula.....	1		<hr/>
			68

OPERATIONS.

Amputation of Great Toe and Meta-		Removal of Parotid tumour.....	1
tasal Bone.....	1	Amputation of Breast.....	1
Amputation of Thumb and Meta Car-		Operated on Nævus with heated	
pal Bone.....	1	needles.....	1
Amputation of Fingers.....	7	Removed Uvula.....	1
Catheterism too frequent to enumerate.		Operated by Subcutaneous Puncture	
Removal of Cancerous tumour from		on Ganglion.....	1
Cheek, and Genio-plastic Operation	1	Reduced Fractures of Radius.....	3
Removal of Encephaloid tumour of		Do. Radius and Ulna....	1
Neck.....	1	Do. Femur.....	1
		Do. Scapula.....	1

MINOR OPERATIONS.

Bleeding.....	25	Seton.....	1
Cupping.....	27	Applied Moxa.....	3
Issues.....	2	Other minor operations not enumerated.	

MEDICAL CASES.

Continued Fever.....	22	Apoplexy.....	2
Remittent do.....	1	Paralysis.....	1
Intermittent do.....	1	Sciatica.....	2
Maculated Typhus.....	3	Neuralgia.....	1
Delirium Tremens.....	1	Pneumonia.....	6
Bronchitis.....	5	Chronic Gastritis.....	3
Pleuritis.....	6	Constipation.....	1
Phthisis.....	11	Cynanche Tonsillaris.....	2
Pleurodynia.....	4	Dropsy.....	2
Morbus Cordis (Hypertrophy).....	1	"Bright's Disease of Kidney".....	1
Pericarditis.....	1	Rheumatism Acute.....	4
Endocarditis.....	1	" Chronic.....	2
Laryngitis.....	1	Lumbago.....	2
Hepatitis.....	2	Psoriasis.....	1
Peritonitis.....	1	Acne Rosacea.....	1
Dysentery.....	3		<hr/>
Gastrodynia.....	2		93

OPHTHALMIC SURGERY.

Entropium.....	1	Prolapsed Iris.....	1
Staphyloma.....	1	Ophthalmitis.....	1
Granular lids with Vascular Nebulæ	6	Cataract.....	4
Purulent Ophthalmia.....	1	Dislocation of Lens.....	1
Corneitis.....	4	Glaucoma.....	2
Ulcers of Cornea.....	1	Retinitis.....	3
Congenital Opacity of Cornea.....	1	Amaurosis from Cerebral Diseased..	3
Ectropium.....	1	Hydrophthalmia.....	1
Fistula Lachrymalis.....	2		<hr/>
Sclerotitis.....	3		46
Iritis.....	1		

AURAL SURGERY.

Herpes of Meatus.....	1	Hypertrophy of Membrana Tympani	3
Inflammation and Suppuration of Meatus.....	6	Rheumatism of Middle Ear.....	4
Hardened Cerumen.....	1		<u>15</u>

OPERATIONS.

Operation for Entropium.....	1	Cataract Extraction 1 }	4
Staphyloma.....	2	Division 3 }	
Blepharoplasty.....	1	Palpebral Abscess.....	2
(formation of Eyelid)		Chemosis.....	8
Fistula Lachrymalis.....	2		

R. L. MACDONNELL, M. D.
A. H. DAVID, M. D.
H. HOWARD, M. R. C. S., &c.

REPORT OF THE MONTREAL GENERAL HOSPITAL, FOR THE LAST
QUARTER ENDING 26TH APRIL, 1852.

(Extracted from the Official Report.)

“ The Committee of Management beg to submit to the Governors of the Institution their Report for the Quarter.

“ From the Report of the Medical Board it appears that one hundred and forty in-door and five hundred thirty out-door patients have received the benefit of the Institution during the quarter.”

Number of the patients admitted during the last quarter :—

IN-DOOR PATIENTS Belonging to		OUT-DOOR PATIENTS Belonging to	
Montreal	97	Montreal	585
	<u>97</u>	Emigrant.....	1
			<u>586</u>
Males.....	56	Males.....	285
Females	41	Females.....	251
	<u>97</u>		<u>536</u>

Total number remaining in Hospital, 26th April,..... 42
Of which there are Medical cases,..... 31
Surgical cases, 11

MEDICAL DISEASES.

Admitted during the last three months.

Anasarca.....	2	Exema Capitis.....	1
Albumenaria.....	1	Emphysema.....	1
Ascites.....	1	Fever (Common Continued).....	2
Bronchitis.....	2	Typhus.....	2
Cephalalgia.....	1	Typhoid.....	1
Cynanche Tonsillaris.....	1	Gastrodynia.....	1
Delirium Tremens.....	1	Hermiplegia.....	1
Diarrhoea.....	1	Hepatitis, Chronic.....	8
Dyspepsia.....	8	Hysteria.....	1

Hypochondriasis.....	1	Pneumothorax.....	1
Icterus.....	1	Pleuro-pneumonia.....	1
Influenza.....	6	Psora.....	1
Meningitis.....	2	Rheumatism.....	4
Œdema.....	1	Scrofula.....	1
Pericarditis.....	1	Tuberculosis.....	2
Phthisis.....	6		—
			92

SURGICAL DISEASES.

Admitted during the last three months.

Arthritis.....	2	Hæmorrhoids.....	1
Bursitis.....	1	Luxations.....	3
Caries.....	2	Morbus Coxæ.....	1
Contusion.....	2	Ophthalmia.....	2
Fractures.....	3	Syphilis.....	2
Fistula in Ano.....	3	Ulcers.....	7
Perineo.....	1		—
			28

OPERATIONS.

Bleeding.....	1	Minor Operations.....	37
Cupping.....	1	Teeth Drawing.....	50
Fractures.....	3		—
Issues.....	3		95

His Excellency the Governor General has been pleased to make the following appointments, viz :—

Drs. James Sampson, of Kingston, Harmannus Smith, of Ancaster, James Wilson, of Perth, Basil R. Church, of Merrickville, William H. Brouse, of Prescott, Robert Edmondson, of Brockville, William W. Howard, of Farmersville, Henry H. Wright, of Reesorville, William Allison, of Markham, Roderick M'Donald, of Cornwall, George H. Park, of Hamilton, James Mitchell, of Dundas, John Fraser, of Pelham, Thomas C. Macklem, of Chippawa, Ephraim Cook, of Norwich, John B. Crouse, of Simcoe, George Southwick, of St. Thomas, William T. Aikins, of Toronto and Thomas D. Morrison, of Toronto, to be Associate Members of the Medical Board of that part of the Province called Upper Canada,—*Canada Gazette*, April 3, 1852.

His Excellency the Governor General has been pleased to grant Licenses to practice Physic, Surgery and Midwifery in that part of the Province called Upper Canada, to George D. Morton, of Holland Landing, in the County of York, and George Gillespie, of Picton, in the County of Prince Edward.—*Ib.*, April 17.

Appointments.—We are happy to announce that Dr. David has been appointed Consulting Physician, and Dr. G. E. Fenwick, Attending Physician, to the Ladies' Benevolent Institution of Montreal.

Communications have been received from Dr. Marsden, Quebec ; Dr. Courteau, St. Roch ; Dr. Kellogg, Hamilton ; Dr. Williamson, Toronto ; Dr. H. M. Dechene, St. Paschal ; Dr. Crumbie, Streetsville, the latter we thank for his very flattering remarks.

Obituary.—At Hamilton, on Wednesday, the 24th ultimo, John W. Hunter, Esq., M. D., aged 36 years.

On Saturday, 3rd inst., at Lachine, of Typhus Fever, aged 41 years, Benjamin George Calder, Esq., M. D.

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.443
1 Centimètre.	4½ Lines.	0	0	4.433
1 Décimètre.	3 Inches 8 Lines.	0	3	8.830
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Old Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		399
The English Foot.	30 Centimètres.	304		794
The Yard. (3 Feet.)	91 Centimètres.	914		383

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	½ Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	3	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	35.15
Old Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 Centigrammes.	0 Grammes			033
1 Gros.	4 Grammes.	3			82
1 Ounce.	30 Grammes.	30			59
1 Pound.	500 Grammes.	489			50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 39.370788 inches. 3 280899 feet. 1.093633 yard.
Décimètre, 1-10th of a mètre	3.937079 inches.
Centimètre, 1-100th of a mètre	0.393708 inch.
Millimètre, 1000th of a mètre	0.03937 inch.
Measures of Weight.	
Kilogramme, weight of one cubic decimètre of water of the temperature of 39° 12' Fahr.	{ 2.6803 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5438 grains troy. 0.9719 scruples.
Décigramme, 1-10,000th of a kilogramme	0.032 ounce troy.
Centigramme, 1-100,000th	1.5438 grain troy. 0.1543 grain troy.

CANADA

MEDICAL JOURNAL.

VOL. I.

MONTREAL: JUNE, 1852.

No. 4.

ORIGINAL COMMUNICATIONS.

ART. XIX.—*Successful Operation for the cure of Occlusion of the Vagina, and a partially successful one for Vesico-Vaginal Fistula in the same patient.* By ROBERT L. MACDONNELL, M. D., Surgeon to St. Patrick's Hospital; Lecturer on Surgery, St. Lawrence School of Medicine, Montreal, &c., &c.

As cases similar to the following are not of common occurrence, I have thought that an account of it would not be uninteresting to the profession :—

A lady, aged 22, was delivered, after a tedious labour of five days duration, of a dead child, two years previous to her consulting me. She recovered slowly, and much inflammation and suppuration of the genitals ensued. She was confined to her bed for nearly a year, and when she had partially regained her strength, she discovered that the orifice of the vagina was closed, and that through a small aperture, about the size of a crow quill, situated about half an inch under the arch of the pubis, the urine flowed whenever she attempted to move, and could be passed through this opening by a spontaneous effort. It was also noticed that the menstrual fluid trickled through this opening at each monthly period. I was consulted by her medical attendant as to the nature of the affection, and the treatment to be pursued, and I advised a gradual dilatation of the orifice by means of waxed bougies, as it appeared to me, that the small orifice was the opening into the obliterated vagina. This practice was persevered in for about a year, when the lady decided on consulting me personally. When she arrived in Montréal, I was absent, and Dr. Hall, who was then visiting my patients, saw her. He found that the orifice had been somewhat dilated, and that the finger could be introduced, for a certain distance, when it came in con-

tact with a resisting substance that prevented further entry. He advised a continuance of the dilatation. I was again consulted, and now recommended an operation, to which the lady readily consented, as her life had become miserable in the extreme ;—pus, urine, and the *debris* of the menstrual discharge were almost constantly flowing, and she was obliged to withdraw herself from society in consequence of the offensive odour that always surrounded her. The integuments of the inside of thighs, and round the anus, were always in a state of excoriation, and although ablution was practised several times a day, this condition could not be prevented, and added much to her sufferings. It is not unworthy of remark that, of all the remedies employed to relieve her, consisting of lotions of a cooling and anodyne nature, ointments, liniments, &c., that she derived most benefit from a 20 grain solution of nitrate of silver, applied immediately after the excoriated parts had been thoroughly cleansed with soap and water. This not only kept the diseased action in check, but acted as a local antiphlogistic, relieving the painful sensation of burning and scalding that used to afflict the patient. Her strength was exhausted, she had become much emaciated, and her spirits were greatly depressed. In the latter part of October, 1851, I proceeded to the part of the country in which she resided, accompanied by Dr. Hall. We there met the surgeon under whose care she had latterly been placed, and from him, and from the patient, herself, learned the following particulars :—She had, it appeared, been advised to consult a surgeon from the United States, who told her that the orifice before alluded to, was the *meatus urinarius*, that any attempt to dilate it would be injurious, and proposed that an aperture should be made in the structure intervening between this and the anus. This view of the case appeared to be confirmed by the fact that, *whenever the surgeon attempted to dilate the opening by means of a very small speculum procured for the purpose, the urine used to flow freely, and no other passage was discoverable, leading to the bladder.* The real meatus, nymphæ and clitoris were removed, and an inflamed mucous membrane closely applied to the under surface of the arch of the pubis, and the cutaneous surface of the labia majora, were the only external marks of genital organs remaining ; a hard, gristly cicatrix occupied the entrance of the vagina, and firmly resisted the finger, barely allowing a very small, three bladed speculum to pass within the orifice. Having examined the condition and locality of the rectum, as well as I could, and being satisfied that the orifice was not the meatus, nor a dilated urethra, I determined, with the consent of my colleagues, to remedy the defect by the following operation :—The patient was placed on a table, before a large window, and the parts

exposed as in the operation for lithotomy, and chloroform administered. The speculum being introduced, the blades were opened as much as possible, and two deep incisions made downwards towards the rectum, including a large triangular, wedge-shaped portion of the cicatrix, the apex of which was posterior, next the rectum. The sides of the wound separated widely, the wedge-like portion was taken away, and the dissection extended upwards for about two inches unto the vagina. We now examined for the cervix uteri and could not find it, but easily recognized a movable body, formed, as we believed, by the uterus itself lying in its natural position, although none of us could detect the os tincæ.

After a careful examination, I was enabled to get my finger behind a thick membranous structure that divided, like a diaphragm, the anterior from the posterior part of the vagina, and through the medium of which the uterus had been felt. I soon reached the os and cervix uteri, and having divided the membrane by an incision carried upwards, we were enabled to introduce the speculum and examine occularly the mouth and neck of the womb. *The Vagina was now restored.* A few ridge-like bands passing along the posterior wall, were in succession divided, and grated audibly under the touch of the knife. Not much hæmorrhage ensued, and no vessel had to be tied. The patient having recovered from the state of insensibility, requested to have all further interference delayed until the next day. She was placed in bed, a plug of lint passed into the vagina, and an anodyne draught administered. Every thing went on well until about 12 o'clock the same night, when smart hæmorrhage ensued, and after some trouble we discovered, by means of the speculum, the bleeding vessel about two inches up the vagina, on its posterior surface. A ligature was passed round it, and the bleeding immediately ceased. She slept well afterwards. The next morning, we made a careful examination of all the parts, and found that the original sloughing process had destroyed not only the nymphæ, clitoris, under surface of urethra, but that a large transverse vesico-vaginal fistula also existed; the entrance to the bladder being, in fact, through this transverse slit, *no vestige of the urethra remaining.* This was an unexpected complication, for though we were fully satisfied that a great portion of the urethra was removed, yet we thought that sufficient of its vesical extremity remained to answer the purpose of a conduit, and to prevent escape of urine. The discovery of this opening now explained what before was obscure, viz: that the patient could not retain the urine, whenever the speculum was introduced, for the orifice in the cicatrix

being on a level above the vesical opening, its edges served as a barrier in preventing the escape of the fluid.

Being obliged to return to Montreal the day after the operation, I gave directions to the patient to remain quiet in bed, and to introduce daily a plug of waxed lint in the shape of a rectum bougie, so as to prevent the future contraction of the passage. A good deal of suppuration ensued, but the patient recovered quickly from the effects of the operation. The wound healed completely, and the organ was restored to all its functions. The catamenia appeared regularly, the patient gained health and strength, and was soon enabled to go about, and attend to her household affairs. The urine, however, escaped through the fistula, except when she lay in a position with the hips elevated, and in consequence of this inconvenience, I advised her to come to Montreal to have a second operation performed; informing her, that if no benefit ensued, no bad consequences were likely to follow an attempt at *contracting the fistula*: for as the reader must at once perceive, the ordinary conditions of vesico-vaginal fistula being absent, the common operation of closing the fistula could not have been performed in this case, as supposing it feasible, the only orifice for the escape of the urine would thus have been obstructed. It was thought that surgery might be employed to advantage, in so altering the shape and size of the opening, that instead of a transverse slit, about one inch and a third long, situated immediately behind where the normal neck of the bladder should be placed, that a *circular* orifice might be substituted, which, if it did not answer completely all the purposes of a sphincter, would at least, check the flow of urine, and might diminish the inconvenience arising from its escape. Moreover, I was not without hope, that if the fistula could, by any means, be made to assume a circular shape, some mechanical apparatus, retained in situ, like Simpson's uterine supporters, might be contrived, with a truss-like pad to press against the orifice, and thus help in preventing the escape of the bladder's contents.

With this view, on the 26th of April, 1851, the following operation was performed:—

The patient was placed on her hands and knees on the edge of a bed, a bi-valved speculum was introduced, and the fissure fully exposed. Assisted by Dr. Hall, I performed the operation as follows:—The edge of the fissure, which was much thickened, hard and gristly, was pared with a scalpel until a raw bleeding surface was procured, then curved needles armed with ligatures, were introduced by means of Jobert's *porte aiguille*. The first entered at a point a little to the right of the centre of this transverse lip, and came out at a distance of a quarter of

an inch; the second was introduced at a little distance to the external to the first, and emerged at an equal distance from the point of exit of the first suture, and the third one was entered and brought out in a similar manner, the same distance between the points of entrance and exit being preserved as in the instances of the other two sutures. The ligatures were now fastened, and what was before but *one transverse* lip, now was converted by the tying of the ligatures into *two*, uniting in the median line and *taking a direction backwards*. If this description be not sufficiently plain, let the reader take a dried bladder, cut away all the inferior part of it near the urethra, together with the under surface of the urethra, in such a manner as to have a transverse lip at about one inch from the neck of the bladder, then let him introduce three ligatures at regular distances and tie them, and he will find that he not only contracts or puckers up the opening, but that from one lip he has made two, and that the line of their junction is backwards and forwards. This was the only modification of the operation for vesico-vaginal fistula that I considered suited to the case. The tying of ligatures in deep cavities has always been found a difficult and tedious part of an operation, but the following method first recommended by Sir P. Crampton in staphylophary, will be found to answer remarkably well. One end of the ligature is passed through a *brass* bead, (steel will break,) such as are used in ornamenting purses, the other end being passed through both edges of the wound, is made to pass through the bead, and both ends of the ligature being now in the bead, the latter is pushed up against the incised edges, and then pinched firmly on the ligature, by means of a jeweller's pincers, so as to tighten it in such a way that it cannot move in one direction or the other. When it is necessary to remove the ligature, the bead and all can be taken away at the same time. This form of suture I have been in the habit of describing in my lectures as *Crampton's suture*, and I can strongly recommend it to the attention of surgeons.

Circumstances to which it is unnecessary to allude, obliged her to go home sooner than I wished, (May 6th) but not before she derived very great, although not complete, relief from the operation. She is now enjoying excellent health and able to go about as she pleases. She can retain water for nearly two hours, and in certain positions for even a much longer period. Having derived a greater amount of relief from surgery than she ever expected to procure, and being restored to society, she is unwilling to undergo the risk or pain of any further interference, for I need not mention, that it is not easy, or indeed safe, to put a patient under the influence of chloroform, who has to be retained in the position already described, for the length of time that these operations usually take to perform.

It is, perhaps, unnecessary to state, that for obvious reasons, the name of the accoucheur who attended her, and the excellent surgeon who afterwards had her under his care, as well as the locality where the patient resides, are intentionally omitted.

It will at once be apparent to all practical surgeons, that the reason I removed a wedge-shaped portion of the cicatrix, was to prevent the possibility of reunion by granulation taking place, which would inevitably have restored the occlusion. I may mention in conclusion, that the pelvis was of the ordinary dimensions, and that should she become pregnant, there is little difficulty to be anticipated in the act of parturition.

ART. XX.—*Trinidad de Cuba, as a climate for invalids.* By HORATIO YATES, M. D., Kingston, C. W.

[THE following interesting communication was forwarded to the Editor of the late *British American Journal of Medicine*, who has kindly sent it to this Journal for insertion :]

Knowing that there is a good deal of doubt and uncertainty felt by the profession, as to what climate is best adapted as a *winter residence* for their phthisical patients, I send you a few words with reference to *Trinidad de Cuba*, for I believe it to be the most desirable for such cases of any locality that I have ever seen or heard of.

Situated on the south side of the Island it is protected by a range of mountains, which stretch from one end of the country to the other, from the harsh winds that sweep over the northern continent, in the winter. Whereas these winds form almost the same objection to the *north* side of *Cuba*, that you find in the southern-most of the United States.

Trinidad is built upon a delightful acclivity, four miles from the sea coast, and at an average elevation of 240 feet. It lies at the outlet of a beautiful and luxuriant valley, twenty miles in extent, and which presents throughout a waving sea of Sugar Cane. On either side of the valley, and of the town, rise fertile mountains. On these are very extensive *potreros*, or pasture lands, of the planters. Besides, there are Coffee estates, and the mountain seats of the Gentry. Here the invalid may repair during the hot months, if he remains the whole year, for the proprietors are unbounded in their hospitality, and he will not want perpetual invitations to stay with them. They are always delightfully cool. The mountains abound in game, and afford plenty of sport.

The soil about the town is sandy. Beneath this lie masses of conglomerate limestone rock, with the interstices between the masses filled with sand.

The *temperature* throughout the whole year is very equable, indeed the thermometer in Montreal is frequently higher in Summer than it ever is here. And then, from the great dryness of the atmosphere, the sensation of heat is very much less than it is, in the same temperature, in the north—for the same reason, that the sensation of cold, in Canada, with the thermometer at zero, is quite a different thing from the same in England, with the Mercury in the same place.

Since I arrived here, early in December, I have carefully kept a thermometrical register. I have made three observations a day—at 7 A. M., and at 2 and 7 P. M., and I find the lowest point in the temperature to have been 64.5° Fah. The highest point reached was 84°—the lowest that day being 76.5°. The greatest variation in any twenty-four hours has been, 9.5°; and that upon only one occasion. The *average* for the time that I have been here has been, for the three observations respectively, 72.8447°, 78.734°, and 75.258°, Fah.

The *dry season* extends from November to May, during which rain falls very seldom, and then in a dashing little shower, leaving the air suddenly fresh and cool. Trinidad is extremely healthy, and is exempt from any endemic disease. Pulmonary phthisis is almost entirely unknown, and longevity is remarkable.

It may be easily reached, direct from New York, or other American ports, by sailing ship, or *via* Havana. I have serious objections to any invalid coming in a *steamer* to Havana. They are crowded with California nondescripts, and are thereby rendered excessively uncomfortable. Whereas the sailing vessels are agreeable, and one has a longer voyage, which is an advantage.

There are no hotels or boarding-houses here; but one rents a suitable house, and hires a cook, or *messes* with some of his countrymen. I do so, and find it very comfortable and economical. A person coming here should bring his own plate and linen, also a supply of linen clothing and *thin shoes*. My row of boots is entirely useless. For furniture, one has little trouble about it, and very little is used. One sleeps on a cot or stretcher, with only a pair of sheets, and it is very comfortable. One should bring also a woolen plaid or scarf, it will be useful on the ship, and will serve here as a blanket, when the mornings are chilly. I am thus explicit in these trifles, as I have a *personal* knowledge of their importance.

I have great faith in the advantages of climate for phthisical invalids, and I believe that many in the first and second stages of the disease,

who would otherwise shortly die, would, by a residence here, live in comfort and usefulness for an unlimited period. As to my own case, both you and our friend, Dr. MacDonnell, have personally examined it nearly two years ago; and I assure you, that, instead of retrograding, I have not at this moment a symptom of phthisis about me, and I now weigh more than I ever did in my life before. All my improvement in health I attribute to *climate*, and to *cod liver oil*. You will remember, that I spent last winter and spring in the Mediterranean and in Italy. For those who are only slightly ill, perhaps these situations would be as useful, and more agreeable (in an historical and poetical point of view,) than any W. I. Island.

With regard to the *social* state of Cuba, I must say, that I never felt greater security in my person or property, in England, or in America, than I do here; I have not heard of the commission of any crime since I arrived. I have frequently gone to bed, in town, without fastening my doors. The system of passports is as teasing a nuisance as it is in Europe, and is as strictly maintained here as there, for the benefit of a swarm of hungry (but civil) officials.

In a month or two, I shall return to Kingston and my practice.

Ever sincerely yours,

HORATIO YATES.

Trinidad de Cuba, 9th April, 1852.

ART. XXI.—*Experiments on the Livers of Birds, in relation to the presence of Sugar.* By GEORGE D. GIBB, M. D., L. R. C. S. I., Lecturer on the Institutes of Medicine, St. Lawrence School of Medicine, Montreal, Physician to the Montreal Dispensary.

DURING my residence in France in 1848, M. Claude Bernard published a paper in the *Archives Générales de Médecine*, upon the source of sugar in the animal economy. I was presented with a copy of this paper through the politeness of the author.*

His experiments on the liver, demonstrating the existence of sugar as a natural constituent of that organ, were principally confined to the dog species, and I have repeatedly confirmed them in the human subject, and in many other animals of the class *Mammalia*.

The healthy liver of man and animals is now proved to contain sugar as a normal constituent; but in certain diseases, particularly those of a tuberculous character, as Pulmonary Phthisis for example, where we

* An abridged translation is published in 5th vol. *British American Medical and Physical Journal*.

sometimes find the liver enlarged, and in the condition termed "fatty" by Louis, the amount of sugar present appears to be very great indeed.

To determine whether this rule, the natural existence of sugar in the livers of Mammalia, would stand good with respect to another class of the Vertebrata, namely birds, which rank next in importance to Mammals, I instituted a series of experiments.

It will be remembered, that, in birds, the liver is a viscus of considerable magnitude, consisting of 2 principal lobes, and firmly suspended in situ by broad ligaments and membranous processes. The vena porta, supplying that venous blood from which the bile is elaborated, is formed by vessels, derived from numerous sources, receiving not only the veins of the stomach, spleen, and intestines, as in Mammalia, but likewise the renal and sacral veins.*

There is also a difference in the amount of fat contained in the livers of the different orders of birds. Thus in the Palmipedes or web-footed Birds, and the Grallæ or Waders, the larger number of species possess quantities of fat in their livers. In the Gallinæ or Poultry, again, in very many species there is a notable absence of fat.

The quantity present, or absent, of the fat, influences the amount of sugar to be detected, at least such is the conclusion numberless experiments lead me to.

If, again, the hepatic cells of the livers of birds are examined with the microscope, they are found even more free from fat globules than are those of Mammalia, and they are almost entirely filled with amorphous biliary particles†

In the following experiments, the livers were pounded in a clean mortar to a pulp, then boiled in a very small quantity of water for some minutes, and filtered. After cooling, the filtered fluids were examined. They are examples selected from a number.

No. 1.—Small chicken.

Moore's Test gave the merest trace of sugar.

Trommer's showed its presence satisfactorily, but still in small quantity.

Cappezuoli's was also satisfactory, the yellow deposit of oxide of copper being pretty clear, after the lapse of some hours.

No. 2.—Larger chicken than the last was killed by dividing the jugular vein, collecting the blood as it flowed. This fluid was allowed to separate into its 2 portions, and the serum examined for sugar, but no satisfactory results were obtained.

* Rymer Jones, Comparative Anatomy.

† Principles of Physiology, General and Comparative, by W. B. Carpenter, edition 1851.

The liver was treated in the usual way.

Moore's Test showed the presence of sugar greater than in the last experiment, but still in small quantity.

Trommer's was pretty satisfactory, and showed the presence of a tolerable quantity.

Cappezuoli's was also equivocal, more so than in the last experiment.

No. 3.—Liver of a *Fowl*.

Moore's Test light brown.

Trommer's, very marked indeed.

No. 4.—Liver of a *another Fowl*.

Moore's Test pale brown.

Trommer's, darker brown.

No. 5.—Liver of a *Turkey*.

Moore's Test, light brown.

Trommer's, darker brown.

No. 6.—Liver of a *Goose*.

Both Tests very much marked indeed, indicating a large quantity of sugar.

No. 7.—Liver of a *Duck*.

Both Tests, marked in a similar degree to the goose.

Sugar was detected in every bird's liver I examined, the quantity being in proportion to the amount of fat present, and this was invariably large in the web-footed or water birds. There is a striking analogy to this; in the Phocida, among the mammalia animals living almost entirely in the water, as the Walrus and Seal, and in which their livers are found to be almost masses of fat, and the quantity of sugar in that of the Seal is enormous.

M. Bernard, in his experiments, examined the blood as well as the liver, and found sugar to be a normal ingredient in both. I was unable to examine the blood, excepting in one instance, and discovered none.

To pursue these investigations farther, experimental examination should be made on the livers of Reptiles and Fishes, which are store-houses of fat and oil; the livers of cod and other large fishes prove this from their yielding a considerable supply of the latter. And the great bulk of the liver in the Crustacea, Mollusca, and cold-blooded Vertebrata just mentioned, has reference apparently, not to a large production of bile, but to an accumulation of fat.

The deductions to be drawn from the fact of sugar existing in the liver and blood, cannot as yet be satisfactorily arrived at, until our knowledge is farther advanced on the subject. M. Bernard considers that a regular function of the liver is the formation of sugar, and that the liver alone has the power of producing sugar without starch. The

sugar, as it is formed, is conveyed away by the hepatic veins, the vena cava inferior and right side of the heart; and as none is found in the pulmonary veins returning from the lungs, Magendie infers, that it must have undergone destruction in the lungs and the carbon eliminated.*

The presence of sugar in the blood of the portal vein, which takes venous blood from the intestines and other viscera to the liver, is accounted for by M. Bernard, by the regurgitation of the blood from the liver, when the pressure of the abdominal parietes is removed on opening the abdomen; and this is permitted, he says, by the absence of valves. In this view, I cannot altogether coincide with the author, but do believe, that the sugar found in the Vena Porta is totally independent of that in the liver itself, probably arising in most instances from the mesenteric veins.

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ART. XXII.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University of M'Gill College, &c.

(Continued from page 141.)

THE Sanatory Institutions of the Hebrews may be considered as regarding—First, *Persons*;—Secondly, *Places*; and Thirdly, *Things*. Our remarks will have reference to them under these three heads; but we have considered it advisable to follow, as closely as possible, the order of the sacred volume, and, after due attention to its teachings, shall offer such illustrations afforded both by Christian and Jewish writers, as may be within our reach or memory, and necessary to do full justice to our subject. And first—

OF THE PROHIBITION OF BLOOD.

The first law best calculated to promote man's physical, as well as moral, perfection, is contained in the 28th verse of the first chapter of Genesis, and further expounded in the second chapter of the same book and in subsequent portions of the Sacred Writings. But we defer our remarks upon this law, until we reach the subsequent legislation of Moses thereon. In the seventh chapter of Genesis, we find the distinction made between "beasts that are clean" and "beasts that are unclean." This subject we also defer for after-notice, and proceed to examine the prohibition to eat blood, first expressed in the ninth chapter, third and

* See Dunglison's Human Physiology, for a clear consideration of these experiments, vol. 2, 1850, a work that ought to be in the Library of every enquiring Physician.

fourth verses, of the book of Genesis, in the following terms, "Every moving thing that liveth shall be food for you, even as the green herb have I given you all. But flesh with the life (nefesh) thereof, *which* is the blood thereof, shall ye not eat." Such is the translation and interpretation given to this passage by the English authorised version,—an interpretation which we believe to be in strict accordance with its grammatical construction; and such also is the interpretation of the great majority of commentators of all ages and countries. Here, it may, perhaps, be only necessary to cite those not generally attainable. "The prince of Jewish commentators," R. Solomon Jarchi, commonly known as Rashi, on the words "with the life thereof, which is the blood thereof," remarks, "God here prohibits to them (the tearing off and eating) the members of a living animal, and saith, as it were, to them, 'So long as the *life* (nefesh) is *in the blood*, thou shalt not eat the flesh.' " R. Abraham Aben Ezra on the same passage says, "The meaning of these words is this,—but the flesh *with its life, which is its blood*, shalt thou not eat, and this is in accordance with the reason (subsequently) given in Holy Writ, 'Thou shalt not eat the life with the flesh, for the life of all flesh is its blood, &c.'" Don Isaac Abarbanel has the following observations on this passage, he says: "And because in slaughtering animals for food, they might acquire cruel habits, God prohibited to them the eating of the members of a living animal—a custom which is certainly the height of cruelty. Therefore saith the text *אך בשר בנפשו דמו לא תאכלו*. The *ב* (beth) in *בנפשו* (benafsho) is used for *עם* (ngim—with) just as it is in *ברכבו וּבפָּרָשׁוֹ* (berichbo oobpharashav Ex. xv. 19,) &c. The text meaneth, therefore, And the flesh while yet its life (nefesh) is in it, the blood ye shall not eat of that flesh. Such is, doubtless, the right and proper exposition of this passage." Agreeably with his usual custom, before he proceeds to his exposition, Abarbanel states those questions he deems requiring particular notice, and here he seems ironically to ask, whether the blood be dependent upon the life, or the life upon the blood? "Surely," he exclaims, "the exposition of Haramban (*i. e.* R. Moses ben Nachman) which is 'but the flesh with its life *which is its blood, &c.*' and which opinion makes the life to be identical with the blood, is a very erroneous one, and not for a moment to be entertained." It is with regret that we find ourselves unable to subjoin the exact language of Nachmanides, but must reserve our quotation from him, for an appendix. It seems, however, from Abarbanel's own words, that he merely asserts what Rashi and Aben Ezra say, the sacred penman himself, seems to assert, viz., *the vitality of the blood*; and in such case, his opinion does not deserve censure, since it has met, during the last two centuries, with many deeply learned advocates, who, however, merely reiterate to a

great extent, what Jewish exposition and tradition have maintained centuries before them.*

The learned Dr. Townley in his translation of a portion of the "Moreh Nebuchim" (Guide of the Perplexed) of Maimonides, says :—

"The doctrine of the vitality of the Blood, thus suggested by the Laws of Moses, does not appear to have been avowed by Medical Writers before A. D. 1628, the time of the celebrated Harvey, the discoverer, or the reviver, of the doctrine of the circulation of the blood, who, in his writings, maintained the opinion, but was never much followed, till Mr. Hunter, Professor of Anatomy in London, defended the hypothesis with much acuteness and strength of argument in his *Treatise on the Blood, Inflammation, &c.*, London, 1794, 4to. The arguments of Hunter were vigorously attacked by Professor Blumenbach, of Gottingen, who fancied he had gained a complete victory over the defenders of the vitality of the Blood. But his translator, Dr. Elliotson, in the notes he has added to the Professor's *Institutions of Physiology* (Sect. vi. p. p. 43, 44, London, 1817, 2nd ed. 8vo.) thus sums up what he regards as the true state of the question :—The great asserter of the life of the blood is Mr. Hunter; and the mere adoption of the opinion by Mr. Hunter would entitle it to the utmost respect from me, who find the most ardent and independent love of truth, and the genuine stamp of profound genius in every passage of his works. The freedom of the blood from putrefaction while circulating, and its inability to coagulate after death from arsenic, electricity, and lightning, may, like its inability to coagulate when mixed with bile, be simply chemical phenomena, independent of vitality. But its inability to coagulate after death from anger or a blow on the stomach, which deprive the muscles likewise of their usual stiffness; its accelerated coagulation by means of heat, perhaps its diminished coagulation by the admixture of opium; its earlier putridity when drawn from old, than from young, persons; its freezing like eggs, frogs, snails, &c., more readily when once previously frozen

* Hence the groundlessness of the following remarks in Wood's Mosaic History. It would appear that Mr. Wood had never studied the Talmud, or read Jewish commentators. We will not dwell here on the incongruity of his assertion that Paul (and therefore no doubt the Hebrews of that day) knew well and taught this doctrine, and yet, that (a somewhat gratuitous assumption we conceive) "it was 3600 years before it arrested the attention of any philosopher." Mr. Wood, perhaps, forgot that even before Paul, and long before Harvey or John Hunter, there were philosophers among the Jews who did direct attention to it. And yet Mr. Wood continues: "This is more surprising, as the nations in which philosophy flourished, were those which especially enjoyed the divine oracles in their respective languages." It is yet more surprising that Mr. Wood at "one fell swoop" taketh from Caesar what belongeth to Caesar and by this *ipse facto* assertion shows his utter want of information on the subject. We repeat, it would appear that Jewish tradition and commentary, like other small matters, had not troubled much, in other respects, the learned Mr. Wood. This, however, is not surprising.

(which may be supposed to have exhausted its powers) ; its directly becoming the solid organised substance of our bodies, while the food requires various intermediate changes before it is capable of affording nutriment ; the organisation (probably to a great degree independent of the neighbouring parts) of lymph effused from the blood ; and, finally, the formation of the genital fluids, one, at least, of which must be allowed by all, to be alive, from the blood itself, do appear to me, very strong arguments in favour of the life of the blood.*

Let us now see whether the sacred volume itself does not further support this doctrine of the vitality of the blood. With reference to the passage before us, in which, for the first time, it is apparently taught, we have already stated that we do not think the correctness of the rendering we have adopted can be disputed on grammatical grounds, and Abarbanel has, here, evidently adopted his interpretation, an erroneous one as we conceive, from not having paid due attention to the accentuation and division of the proposition, but to which, on other occasions, he attaches great importance.† Were there a disjunctive accent after the word “benafsho” (with its life,) then his interpretation would hold good ; but, as it is a connective, it is, so far as accentuation has weight, plainly untenable, while the commentaries above referred to, and to which we may also add the Targum of Onkelos, are clearly correct. But prior to entering upon an examination of the other passages of Scripture bearing upon our subject, it may be proper to ascertain whether the word “nefesh,” which is translated above, “life” has really such a signification. And this we can only ascertain by inquiring what are the meanings which some of the most eminent lexicographers have attached to the word.‡

R. David Kimchi, in the first place, applies in his “Sepher Hashorashim,” (Book of Roots), all the various significations to *nefesh* which we find given, secondly, by Gesenius, which are : 1, breath ; 2, life, the vital principle in animal bodies, *anima*, which was supposed to reside in the

* “Blumenbach’s Institutions of Physiologoy,” translated by Dr. Elliotson, Sect. vi. Notes p. p., 43, 44, Dr. Hunter’s arguments may be found in an abridged form in Dr. A. Clark’s Commentary on Levit, xvii. ii., and Encyc. Perth art. *Blood*.

† It may be known to most of our readers that the Hebrew language possesses an all but perfect system of rhetorical accentuation, known as the Masoretic. The accents which are also musical, are capable of dividing a sentence into the smallest propositions, and may be considered as consisting of two classes, disjunctives and connectives. With the system, however, as presented in the Psalms and some other of the sacred writings, no one is fully conversant.

‡ The Spanish Jewish translators, however, here (Gen. ix. 4,) render “nefesh” by the word *alma*, which, if we mistake not, always corresponds with “soul.” Thus R. Menasseh ben Israel (*Humas* ; Amst. A.M. 5415) translates *Empero carne consu alma que es su sangre no commercys*. So also Dias and Fernandes (Bib. Esp. A. M. 5486, Amst.) Cassiodoro de Reyna, the earliest Christian Spanish translator, renders it *anima*, also meaning soul, but adds in a note, “*La sangre se dice ser el anima de la carne porque en ella residen los spiritus vitales sensitivos*.”

breath ; 3, a living being, that which has life ; 4, the soul, spirit, as the seat of the volitions and affections, (the reader will be pleased, however, to compare what Parkhurst says, lower down, on this subject, under No. 4); 5, desire ; also, the object of desire ; 6, scent, fragrancy, odour. Buxtorf, Furst, David Levy, and Newman, give nearly all the same significations. Parkhurst has the following :—As a noun, it means, 1. A breathing frame, the body, which, by breathing, is sustained in life. See Gen. ix. 4, 5 ; Lev. xvii. 10—14, xxiv. 17, 18 ; Deut. xii. 23. From the above passages, he continues, it seems sufficiently evident not only that the animal body is called *nefesh*, but that this name is in a peculiar manner applied to that wonderful fluid, the blood, (Comp. Ps. cxli. 8., Isa. liii. 12,) whence we may safely conclude that the blood is that by which the animal doth in some sense *breathe*, that, agreeably to the opinion of many eminent naturalists,* it requires a constant *refreshment* or *reanimation* from the external air ; and that this is one of the great ends of respiration. Aristophanes, Nub. lin. 711, in like manner calls the blood “*ψυχη και την ψυχην εκπινει* And they drink up my soul or life, i. e., my blood.” And Virgil applies the Latin *anima* to the same sense *Æn.* ix., lin. 349. “*Purpuream vomit ille animam*, he vomits forth his purple soul or life.”* The word means, 2ndly, adds Parkhurst, a living creature ; 3, the affections, desires or appetites ; 4, *nefesh* has been supposed to signify the spiritual part of man, or what we commonly call his soul. I must for myself confess that I can find no passage where it hath undoubtedly this meaning. Gen. xxxv. 18 ; 1 Kings xvii. 21, 22 ; Ps. xvi. 10, seem fairest for this signification. But may not *nefesh* in the three former passages be most properly rendered *breath* and in the last a breathing or animal frame.” Thus far Parkhurst ; and we think we need now but look at the significations of *nefesh* as defined by the high authorities just quoted, to decide that we must translate it in Gen. ix. 4, as we have done, viz :—LIFE.

We proceed to enumerate all other passages having reference to the prohibition of blood, or to its vitality. In Leviticus, ch. iii., v. 17, blood is coupled with the *cheleb* (sacrificial fat or suet) as being everlastingly prohibited to the Israelites. In the 7th chapter of the same book, 26th and 27th verses, *excision* is denounced against the eater of blood ; “*Moreover ye shall eat no manner of blood, whether it be of fowl or of beast, in any of your dwellings. Whatsoever soul it be, that eateth any manner of blood, even that soul shall be cut off from his people.*” At the 17th chapter, verse 10—15, the prohibition of blood is again

* See Tho. Bartholin, *Anatom.* p. 285 ; the Rev. William Jones' *Physiological Disquisitions*, p. 158 ; Dr. Crawford on *Animal Heat*, &c., p. 354, 2nd edit, and *Encyclopædia Britannica* in *AEROLOGY* No. 89, &c., and in *BLOOD* No. 22, &c.

* See the *Encyclopædia Britannica* in *BLOOD* No. 19, &c.

repeated, and its vitality apparently again taught. Verse 10, "And whatsoever man, &c.," I will even set my face against that soul that eateth blood, &c. Verse 11, For the life of the flesh is in the blood, &c.; Again in verse 12. In verse 14, For it is the life of all flesh, the blood of it is for the life thereof, therefore I said unto the children of Israel, ye shall eat the blood of no manner of flesh, for the life of all flesh is the blood thereof, whosoever eateth it shall be cut off."

Rashi remarks on this verse, "Its blood is here in place of its life, for the latter is dependent on the former." Again, "Life is the blood." And Aben Ezra says, "It has reference to the life, for it is known that the veins which proceed from the left side of the heart, are divided into two kinds, those of the blood, and those of the air, and these are (dependent upon each other) like the oil and flame of a lamp."† And here it becomes us to quote also what Abarbanel has written on this passage, in his elegant and elaborate commentary, since it will best serve to show our readers how the doctrine of the vitality of the blood long ago engaged the attention of the old Hebrew commentators, who, by the way, merely wrote in accordance with the received traditions of the Jewish Church.‡

Abarbanel says, "The illustrious Maimonides writes in his *Moreh Nebuchim* that the Chaldeans (Zabii and others,) although as a rule they rejected the use of blood as unclean, would yet eat of it when desirous of holding communion with evil spirits in order to know of matters future," (compare this remark of Maimonides with an illustration from Horace, which we shall have occasion presently to quote.) And therefore doth the law prohibit the eating of blood, and devote it to be poured out and sprinkled upon the altar. And therefore, too, doth the law proclaim, 'I will set my face against that soul that eateth blood,' as it does with reference to the giving of seed to Moloch, but which is not said with reference to any other precept. But Ramban objects to Maimonides that the Scripture doth not so teach, but that the reason always assigned for the prohibition of blood, is that the life of all flesh is in the blood, &c., and that consequently, the prohibition is here on account of the life (of the blood,) and not because it was used for converse with evil spirits. Now, I cannot but be surprised that Maimonides doth not refer to the text quoted by Ramban, teaching the vitality of the

*Mendelsohn says that the stranger of proselyte referred to in this verse is the proselyte of righteousness, *גר צדיק* notwithstanding which the Talmudic Treat, *Sandrin* affirms that the prohibition applies to others than the Israelites.

† From this passage it would appear Aben Ezra entertained an opinion, universally prevailing, among the learned of his time, but which modern science and investigation have since exploded.

‡ See remarks on Woods' *Mosaic History*, note p. 205.

blood, as above, nor take notice of them, and that Ramban himself doth not refer to the passage Levit xvii. 7. ‘And they shall no more offer their sacrifices unto devils, &c.,’ which supports the opinion of Maimonides.” It were needless to notice here the discussion into which Abarbanel enters on this subject, after these introductory remarks. Sufficient be it to state, that, with the Hebrew commentators, he here also maintains the life of the blood.

Thus far then we have three reasons assigned by the Jewish commentators for the prohibition of blood. The first is, that an end might be put to a kind of cannibalism, “which obtained,” says the learned Dr. Townly, “even in the time of Noah, viz:—eating raw flesh, and especially eating the flesh of living animals, cut or torn from them, and devoured whilst reeking with the warm blood.” Plutarch, in his *Discourse of eating flesh*, informs us, that it was customary in his time to run red-hot spits through the bodies of swine, and to stamp upon the udders of sows ready to farrow, to make their flesh more delicious; and Herodotus (l. iv.) assures us, that the Scythians, from drinking the blood of their cattle, proceeded to drink the blood of their enemies. It is even affirmed that both in Ireland and the Islands and Highlands of Scotland, the drinking of the blood of live cattle is still continued, or has but recently been relinquished. Dr. Patrick Delaney says, “There is a practice sufficiently known to obtain among the poor of the kingdom of Ireland. It is customary with them to bleed their cattle for food in years of scarcity;”^{*} and the *Analytical Reviewers* observe: “It will scarcely appear credible at a future time, that at this day, towards the close of the eighteenth century, in the Islands, and some parts of the Highlands [of Scotland,] the natives every spring or summer attack the bullocks with lances, that they may eat their blood, but prepared by fire.”[†] The celebrated traveller, Bruce, relates with minuteness the scene which he witnessed near Axum, the ancient capital of Abyssinia, when the Abyssinian travellers, whom he overtook, seized the cow they were driving, threw it down, and cutting steaks from it, ate them raw, and then drove on the poor sufferer before them.[‡] Sir John Carr states that “the natives of the sandy desert [between Memel and Königsberg,] eat live eels dipped in salt, which they devour as they writhe

^{*} The Doctrine of Abstinence from Blood defended p. 124., note, London 1784. See also “Revelation examined with candour,” vol. 2, p. 20, London 1782, 8vo.

[†] Analytical Review, vol. 28, July, 1789. Retrospect of the active world, p. 105.

[‡] Bruce’s Travels, vol. 3. p. 332—334, 8vo. See also some learned remarks by him on the present subject, vol. 4, p. 477—481, in which he designates Maimonides as “one of the most learned and sensible men that ever wrote upon the Scriptures,” and an able defence of the statement of our author in Murray’s Life of Bruce, p. 74., note.

with anguish round their hands.”* Major Denham also says that “an old hadgi named El Raschid, a native of Medina,” who at different periods of his life “had been at Waday, and at Sennaar, described to him a people east of Waday, whose greatest luxury was feeding on raw meats cut from the animal while warm and full of blood.† And it is a well-known fact, that the savage natives of New Zealand continue to quaff the blood of their enemies when taken in battle.”

A second reason for the prohibition of blood is that assigned by Maimonides as referred to by Abarbanel as above, an authority respected as the highest in these matters by all theologians and biblical critics of all creeds.‡ We quote here in full the passage in his *Moreh Nebuchim*, to which Abarbanel apparently alludes, “Yet excision was denounced against some of them; as *the eating of blood*, because in those times men were too apt to be led into a desire and precipitancy of eating it by a certain kind of idolatry, which was the chief cause why it was so strictly forbidden.” And although Nachmanides, as noticed in our quotation from Abarbanel, refers the prohibition of blood to its vitality, yet is he also of opinion that its prohibition was grounded on the intent and design to suppress idolatrous customs and practices. He thus comments on Deut xii. 23. “They gathered together blood for the devils, their idol gods, and then came themselves and ate of that blood with them as being the devil’s guests, and invited to eat at the table of devils, and so were joined in federal society with them, and by this kind of communion with devils, they were able to prophesy and foretell things to come.” These last words of R. Moses bar Nachman lead us to the illustration from the writings of Horace, already referred to, when quoting a similar passage from Maimonides. It occurs in his *Satires*, 1st book, Sat. 8.

Vidi egomet nigrâ succinctam vadere pallâ
Canidiam, pedibus nudis passoque capillo,
Cum Saganâ majore ululantem. Pallor utrasque
Fecerat horrendas aspectu. Scalpere terram
Unguibus, et pullam divellere mordicûs agnam
Cœperunt: cruor in fossam confusus, ut inde
Manes elicerent, animas responsa daturas. |

* Carr’s *Northern Summer, or Travels round the Baltic in the year 1804*, p. 436 London, 1805.

† Denham and Clapperton’s *Travels and Discoveries in Northern and Central Africa*, vol. 2, p. 36, note, London, 2nd edition, 1826, 8vo.

‡ See Bruce as quoted above.

| Thus elegantly rendered by Francis:—

Canidia with dishevell’d hair,
(Black was her robe, her feet were bare)
With Sagana, infernal dame!
Her elder sister, hither came,
With yellings dire they fill’d the place,
And hideous pale was either’s face.

Dr. Townley affords us further support and interesting illustration of the assertion of Maimonides. He says "The sacred books of the Hindoos exhibit traces of the same kind of worship formerly prevailing amongst them. In the Asiatic Researches, vol. v., is a translation of the "*Rudhiradhyaya* or Sanguinary Chapter" of the *Calica Puran*, by W. C. Blaquiére, Esq., from which the following are extracts:

"Birds, tortoises, alligators, fish, nine species of wild animals, buffalos, bulls, he-goats, ichneumons, wild boars, rhinoceroses, antelopes, guanas, reindeer, lions, tigers, men, and *blood* drawn from the offerer's own body, are looked upon as proper oblations to the goddess *Chandica*, the *Bhairāvas*, &c. The pleasure which the goddess receives from an oblation of blood of fish and tortoise, is of one month's duration, and three from that of a crocodile. By the blood of the nine species of wild animals, the goddess is satisfied nine months, and for that space of time continues propitious to the offerer's welfare.—That of the lion, reindeer, and the human species, produces pleasure which lasts a thousand years.—The vessel in which the blood is to be presented, is to be according to the circumstances of the offerer, of gold, silver, copper, brass, or leaves sewed together, or of earth or of tutenague, or of any of the species of wood used in sacrifices. Let it not be presented in an iron vessel, nor in one made of the hide of the animal, or of the bark of the tree, nor in a peuter, tin, or leaden vessel. Let it not be presented by *pouring it on the ground*,* or into any of the vessels used at other times for offering food to the deity. Human blood must always be presented in a metallic or earthen vessel, and never on any account in a vessel made of leaves, or similar substances."

To be continued.

ART. XXIII — *On Nitric Acid in Hooping Cough and Asthma.* By F. C. T. ARNOLDI, M. D., Lecturer on Midwifery and Diseases of Women and Children, St. Lawrence School of Medicine, Montreal, &c., &c.

THE few following remarks I take the liberty of communicating to the profession, through the pages of this excellent Journal, feeling perfectly confident they will be read with pleasure, inasmuch as they are somewhat novel as regards the alleviation of hitherto supposed intractable diseases, viz: hooping cough and asthma. The *modus oper-*

Soon with their nails they scrap'd the ground,
And fill'd a magic trench profound,
With a black lamb's thick streaming gore,
Whose members with their teeth they tore,
That they may charm the sprights to tell
Some curious anecdotes from hell.

*The very opposite, it will be prevailed, of the Mosaic Institution.

andi of the remedy, I will not at present attempt to explain, but from the results of my own practice and that of my medical confrères who have watched it and adopted it, I confidently recommend its application to all such as meet with similar cases. In hooping cough, at whatever age, whether it be a child at the breast, or a full grown adult, I administer nitric acid in solution, as strong as lemon juice, sweetened ad libitum. I have given to a child of two years of age, as much as one drachm and a half of concentrated nitric acid, in the above manner per diem, and I have never known the disease to resist its use beyond three weeks. In one instance, that of a child at the breast, only seven months old, the disease disappeared within eight days. In another instance of a young lady fifteen years of age the paroxysms were subdued within the first twenty-four hours, and the disease disappeared within ten days. Again, in the cases of two boys about ten years of age living at a great distance from one another, who had had the cough for several weeks, and to such a violent degree, that both of them had the circumference of their eyes ecchymosed as though they had been pummeled in pugilistic combats, the acid acted positively like a miracle. A medical confrère of mine had four of his children severely affected with the same disease in the middle of winter, and although they had to be kept in-doors owing to the inclemency of the weather, they were nevertheless all perfectly cured within three weeks. I might go on to cite a hundred similar instances, but these, I am satisfied, will prove sufficient to induce the profession to adopt this treatment. As regards asthma, the use of nitric acid has proved not only in my own practice, but in that of others who have adopted it, truly marvellous, and I trust that the profession will remain satisfied by my quoting two special cases. One is that of an elderly person, who had been for five years a frequent inmate of the Montreal General Hospital, a thorough victim to this disease. He generally remained under treatment the winter, and used to be discharged when the disease seemed to have exhausted itself. This patient, about eighteen months ago, was again admitted into the Hospital, under the care of my friend Dr. David, who, observing the obstinacy of the paroxysms, resolved on trying the use of nitric acid, the result was that the first night was passed tolerably; the second night he slept well; the day after the third night he reported himself perfectly convalescent, and on the fifth day he was discharged at his own request, since which he has never been heard of. The other case is that of a stout plethoric servant girl, about thirty-five years of age, who applied to me in the early part of December last. She was then labouring under very severe asthmatic distress, and told

me that she had been a martyr to repeated attacks, equally severe for four or five years past; that she had consulted many medical men, but could never obtain any relief, until, as she said, the disease had spent itself. I gave her a prescription containing half an ounce of concentrated nitric acid, and I have never seen her since, but during the New Year holidays, happening to call at the house where she served, I made inquiry about her, when I was told, much to my merriment, that the reason why she never came back to see me was that she thought I had bewitched her. She had often taken medicines which gave her no relief, but that the very first night after taking the acid she slept perfectly sound, and had not, up to that time, had any return of the symptoms. Now, these are obstinate facts, and I trust that this familiar method of communicating them will not diminish their value, nor need any of the profession to be too sceptical to follow the treatment.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

A Treatise on the Diseases of the Chest, being a Course of Lectures delivered at the New York Hospital. By JOHN A. SWETT, M. D., Physician to the New York Hospital, &c., New York, D. Appleton & Co.

IN the first number of this Journal, we lamented the neglect which the subject of Thoracic Disease received from the enthusiastic and zealous members in the junior walks of the Profession who have cultivated the field of modern investigation, and enriched medical science within the last few years; and we explained the fact in a manner which, we believe, will be considered satisfactory by all who know anything of the difficulty of the subject, the research, study, patience, talent, and opportunities, necessary to make the accomplished and skilful auscultator. In the medical classes, that year after year come under the observation of the Clinical Teacher, how few, amongst even diligent pupils, can be point out as ever likely to become skilful or learned in this branch of diagnosis, and how few amongst the present race of physicians have given to the subject, either during their pupilage or when in practice, the attention its importance demands. It is with no ordinary feeling of pleasure then, that we receive the present volume, coming from a practitioner of high standing, of enlarged hospital experience, and who has evidently devoted many years to the study of chest diseases. Dr. Swett is not generally known. In our investigations we have come across his name, and we have from other sources learned, that he has long cultivated thoracic pathology and

diagnosis, though as yet unknown to the Profession in this Province and in Europe, but we are greatly mistaken if the work before us will not place his name in the first rank of those who have written upon the subject.

Having said so much, we pass now to the work itself, which is divided into thirty-five lectures, the first two being devoted to the subjects of *Physical Signs and Rational and Constitutional Symptoms*.

We notice that, under the head of Physical Signs, Dr. Swett has omitted *Mensuration*, which we hold to be a most important sign of thoracic disease. It is true, he has pointed out *Depression* and *Dilatation*, but he has classed them under the head of *Inspection*, and from his silence on the subject, we infer that he does not fully estimate the value to be derived from measuring accurately the chest in certain diseases.

In his opening lecture, Dr. Swett remarks: "At the time I commenced the study of these diseases it was in its infancy in this country—those among our Hospital Physicians, who were not too old to improve, were groping their way in search of light—mistakes were of course constantly made, and many, even distinguished men, who saw these mistakes, pretended to ridicule an art which they were neither willing to learn nor to appreciate. But this feeling has passed away. Those who do not practise auscultation, now admit its importance, and no physician of the old school would wish his son to be educated in his profession, without making himself thoroughly acquainted with the art"—page 1.

We are glad to learn that this change has taken place in New York; we can, as a set-off, state, that in Canada there are some who are too old, and others who are too lazy, to learn the Science, who, nevertheless, pretend to a familiarity with it, and who, on all fitting occasions, apply the stethoscope, fill up insurance papers, give certificates of health, and go throughout the form of examining a patient with as much nonchalance as *though they really heard any thing at all through the stethoscope*. We have improved upon our neighbors—they "groped their way in search of light"—we have made a plunge into the full glare of diagnostic light, without any troublesome groping, although, as every day's experience proves, not without our share of "Mistakes."

Dr. Swett concludes his very plain though clear remarks, upon physical and general symptoms, with the following very true observations.

"The difficulties attending the thorough investigation of pulmonary diseases are by no means trifling. Many mistakes are made by carelessness or ignorance of the Physician. The art of examining a patient implies many high qualifications: a natural talent for observation improved by practice, an ardent desire to learn the truth, an accurate

knowledge of other diseases which may be mistaken for the disease under examination. Many difficulties also arise from the ignorance, carelessness, or stupidity of patients. They are often surprisingly ignorant of their constitutional tendencies to disease, of their previous diseases, of the time when their actual symptoms commenced, and of their subsequent development. All those unfavourable circumstances render the art of diagnosis a work of much labour, of many disappointments. Still persevere. An intelligent mind, a sincere love of truth will gradually overcome the difficulties, and the reward will be a knowledge of the diseases of your patients, and of the proper indications of treatment."

The chapter on Bronchitis, the first which treats of the diseases, will well repay a careful perusal. We have only one fault to mention, and that is, the meagre details our author gives us for making the diagnosis between some varieties of this disease and phthisis. • It is no uncommon thing for junior practitioners, and those unacquainted with auscultation to be misled by the apparently insignificant signs of simple bronchitis detected in certain cases, but which are, in reality, the precursors of the more unequivocal indications of phthisis; and they may have been led into this error by the statements of some who have undertaken the depreciation of the stethoscope as a means of diagnosis.* The signs to which we allude, are, *sharp, sibilant, piping râles*, at the apices of the lungs most frequently heard in front, but often behind in the supra and infra scapular, and occasionally, in the axillary, regions.

These signs are very often considered as merely indicative of bronchitis, but, in the majority of cases, they are caused by tubercular infiltration producing congestion and even inflammation of the minute bronchial tubes, and, according to our experience, these râles portend a *more rapid course of the disease* than any of the other physical signs of incipient phthisis. We have often remarked that though slight roughness of the respiratory murmur, feebleness of respiration, crumpling, (*bruit de frolement*) and a comparative dulness may be present, and the patient exhibit constitutional symptoms of consumption, such as sweating, rapid pulse, cough, loss of strength, and flesh, hæmoptysis, and sinking of infra-clavicular regions, yet all these have vanished (particularly since the discovery of cod-liver oil) and the patient has returned to his ordinary duties and mode of life, but we do not recollect any case, where *persistent sibilant râles occupied the upper portion of both lungs and resisted treatment for bronchitis*, in which other signs of phthisis were not quickly developed, and rapidly hurried on their victim to dissolution.

* See Propositions on the "FALLACIES OF PHYSICAL DIAGNOSIS IN DISEASES OF THE CHEST," by THOMAS ADDISON, M. D., &c. *Critically Examined* by ROBERT L. MACDONNELL, M. D., &c., "British American Journal of Medicine," vol. iii., p. 1.

Cod-liver oil in these latter cases has not been of much, if any, service in our practice. It may be asked, how is common bronchitis to be distinguished from tubercular bronchitis? We answer, by attention to the following rule, which we laid before the profession some years ago, and which subsequent experience has fully confirmed—" *a bronchitic râle confined to the upper lobe of one or both lungs, resisting treatment and accompanied by dulness, at first slight, but which gradually increases, is as valuable a physical sign of phthisis as any we possess.*" Ordinary bronchitic râles are not situated in the apex of the lung; they are easily removed by treatment; they are not at any time accompanied by a dulness which, from being slight, gradually becomes more intense, and the disappearance of these râles is followed by healthy respiratory murmur; whereas, the change from the bronchitic râle of phthisis, is to one still more characteristic of that malady.

We have pointed out what we believe to be a deficiency in Dr. Swett's chapter, and cannot leave it without mentioning that he has also omitted all allusion to the condition of the bronchial tubes in cancer of the lung or to the peculiar signs and symptoms of bronchitis that attend that affection.

We have dwelt on this subject, because we are well aware that inexperienced practitioners frequently mistake the meaning of these sounds and do not attach the importance to them they deserve. Their presence must be regarded as calling for the utmost attention of the physician, and, should they become associated with the other signs we have pointed out, must excite his apprehension, and constitute grounds for an unfavorable prognosis.

The chapter on Pneumonia contains a good summary of the ordinary features of the disease, but little that will guide the practitioner in the diagnosis and treatment of the rarer forms of the malady. Dr. Swett's experience coincides with our own, (as often expressed) that *real* chronic pneumonia, by which he means the condition so well described by Dr. Walshe, is very rarely met with—the great majority of the cases, which are treated as examples of this affection, being either latent pleuritic effusions, or chronic tubercular infiltration.

"Chronic pneumonia," remarks Dr. S., "is so rare a form of disease, that I know nothing positive of its symptoms. I have never met with a single recorded case. Laennec states that he had noted some cases, but that they had been mislaid. Andral mentions, that in this form of disease the symptoms of chronic bronchitis exist, with emaciation, and with the physical signs of dulness on percussion, and bronchial respiration. But these symptoms and signs are not characteristic; they might occur in cases of dilatation of the bronchi, or in tubercular diseases of the lung. Stokes's opinion, that such cases, when cured, result in a

contraction of the affected side, render it probable that he mistook cases of pleuritis for this disease." Page 107.

We are quite confident that the views contained in the above extract will be confirmed by careful observation and experience.

We must say we have been disappointed in not obtaining more extended information on the subject of cerebral symptoms in pneumonia. Our author does not even allude to the statements of some good observers that this complication is usually present with pneumonia of the upper lobes, nor does he do more than allude to the combination of delirium tremens and pneumonia. He adds nothing to our knowledge of the subject..

We have also to complain of the unsatisfactory manner Dr. S. treats of "Gangrene of the Lung," to which he devotes exactly fifty-nine lines. He makes no allusion whatever to the recent valuable researches of Stokes upon the subject, nor does he speak of the difficulty, not unfrequently encountered, in determining the presence of Gangrene, for, as we have years ago shown, many of its most prominent symptoms are exhibited in other affections of the lungs.

The treatment of pneumonia is clearly stated so far as it goes, but is not very full. In an American treatise we were disappointed at not finding some mention of the value of Senega and Lobelia as stimulating expectorants in certain stages and forms of the disease under consideration. We pass over the chapter on Pleurisy, and also that on Laryngitis, merely remarking that Dr. Swett makes no mention of the employment of solutions of Caustic locally to the diseased membrane in chronic laryngitis. This omission is hardly pardonable, for we are indebted to his fellow citizen, Dr. H. Green, (whose name, by the by, he does not even mention) for the revival and promulgation of the practice. The discussions and controversy that ensued upon the publication of Dr. Green's book, both in the United States and in Europe, excited a great deal of attention, and Dr. Swett ought to have given us the result of his experience, when bringing out a new treatise in New York, for, as he knows, the views of Dr. Green have met with more opposition from his own countrymen, and particularly his fellow citizens, than from strangers.

It is true, that he alludes to the employment of Nitrate of Silver locally, in acute laryngitis, but not in such terms as to encourage others to use it. Here are his words, "There is reason to hope, and some reason to believe, that the application of the Nitrate of Silver to the larynx, 40 to 60 grains to an ounce of water, by means of the whalebone and sponge, may be attended with benefit; especially in cases in which the inflammatory action has originally been inconsiderable, or has been subdued by other means. There is reason to think that this remedy not only

acts favourably upon the mucous membrane, but that this mode of application may be made useful by aiding mechanically, in the removal of loose or of partially detached membranes in the larynx." Page 162. *Hoping, believing and thinking*, of the probable utility of a remedy is not what we want. We expect a practical writer to tell us, it is a *good* or it is a *useless* remedy. We cannot infer from the above passage if Dr. Swett has ever used caustic, or if he is going to use it, or if he advises us to use it—all is indefinite. We ourselves have employed it in acute laryngitis, without benefit, in chronic laryngitis, with most decided benefit. Such is our experience.

The lectures on Emphysema and Tubercle of the lungs, occupy eight lectures, and are well worthy of careful perusal. In those on tubercle, the reader will find an accumulation of information not to be obtained in any other treatise with which we are acquainted; but we regret being again obliged to notice the very scanty information our author gives us upon the treatment of Phthisis. The all absolving question of the value of Cod Liver Oil is discussed in a manner, which the great value attached to it, not only by the profession, but by the public, does not warrant. There is no evidence that our author has undertaken any careful clinical researches to establish its utility, to point out the cases to which it is suited, the stage of the disease in which we may expect most benefit from its employment, or the mode of administering it. In short, were a medical man, himself affected with symptoms threatening phthisis, to consult Dr. S.'s work, he should find little to guide him to, or dissuade him from, a trial of the remedy. All that he says is contained in the following meagre summary:—

"Antimony, Digitalis, Iodine, have all had their day of imaginary success, and all have been forgotten. Cod Liver Oil, the present popular remedy, is destined to experience the same fate. It has not, in my opinion, any specific influence in phthisis. It has not, in my experience, performed any wonderful cures. I do not, however, mean to deny its usefulness in this disease. It certainly sometimes appears to diminish the emaciation, to improve the appetite. It is good nourishment; nothing more, and I think it very probable that other kinds of oil, equally well prepared, may exert the same beneficial influence." Page 309.

When so many thousands are using this remedy, and so many Physicians employing it in their own cases and giving it to members of their own families, we are not satisfied at the way the subject has been treated in a large work on pulmonary diseases.

Dr. S. omits all mention of that curious and interesting disease, *Atelectesis Pulmonum*, which is the more extraordinary, as it is at present attracting more than usual attention from pathologists. The

liability of its being mistaken for chronic pneumonia, alone entitles it to investigation. Many years ago, Drs. Stokes, Corrigan and others, exhibited at the meetings of the Dublin Pathological Society, specimens of diseased lungs, which they considered as examples of new, and not previously described forms of pneumonia, and termed them cases of "blue pneumonia," "acute induration of the lung," and a striking anomaly appeared to consist in the absence of all inflammatory products, either on the surface of the lung, in the pleural cavity, or in the parenchyma of the lung, immediately adjoining the indurated portions. These cases, we are now satisfied, were examples of atelectasis, and not in any way connected with inflammatory action within the thorax. Our readers will admit that a subject which has called forth more than one bulky volume for its discussion should not have been neglected in a Treatise published in 1852.

The last two lectures upon pulmonary disease, are devoted to cancer of the lung and mediastinum. Dr. S. has only met with three examples of this affection. He says "but few cases have been recognized during life, I have succeeded once in three cases. In time we shall understand the subject more fully, if you make yourselves well acquainted with the more common diseases with which cancer of the lungs may be confounded, and you meet with a case which presents anomalous symptoms or signs which cannot be explained, think of cancer of the lung." From this passage one would suppose that the diagnosis of cancer of the lung was to be made out by negative and not by positive signs—that we have no other guide than *par voie d'exclusion*. This is not so, there is no disease, the diagnosis of which is more clearly established by positive signs and symptoms than cancer of the lung. It is much easier to mistake the ordinary diseases for cancer, than to mistake cancer for the ordinary diseases; and if we recollect that the pathology and diagnosis of this remarkable affection have been worked out only recently, the first accurately recorded case being that published by Graves, in 1834, and the last and the most remarkable, as yet on record, by ourselves, in a late number of the *British American Medical Journal*, it is truly astonishing to what a degree of perfection the diagnosis has been brought. In our case, we ascertained the nature of the malady, and delivered a clinical lecture upon it, long before the patient's dissolution.

The second part of Dr. Swett's work is devoted to Diseases of the Heart and Blood Vessels, and is in every respect an admirable addition to our knowledge of this still obscure subject. The extent to which this notice has already stretched, precludes our going fully into a discussion of our author's views. We remark, however, that he does not claim for physical diagnosis perfect infallibility, in this department,

which many over-zealous auscultators have done, thereby bringing the science into unmerited dispute, and by their assertions that we had already arrived at perfection, putting a stop to further inquiry on the subject. We are amongst those who believe that much yet remains to be done in cardiac diagnosis, and the first step towards advancement must be to divest ourselves of many of the incumbrances heaped upon us by fanciful and hasty observers. The real difficulty of cardiac diagnosis consists in this, that *we rarely find but one morbid condition present*. There are usually several, and the practitioner must make allowance for the manner in which some alterations of structure modify the signs produced by others, and he must bear in mind this fact, that having made the diagnosis between an organic and an inorganic disease, the *variety, modification, or locality* of the organic change will not be ascertained unless he carefully study the general symptoms, and the condition of the lungs, liver, &c., in connection with the physical examination of the heart. From these two sources combined, he will derive accurate information, but not from either of them alone.

Did space permit, we would quote some of the excellent passages we have noted in this section of the work, but we must draw our remarks to a close, with the expression of our opinion, that notwithstanding the faults we have pointed out, the work of Dr. Swett is a most valuable addition to modern medical literature: in it, the practitioner who wishes to master the subject, will find a judicious, and what is rare in these days of book-making, an experienced guide; and the student, a careful, pleasing, and intelligible instructor, and we feel confident that the well-merited reputation of Dr. Swett will be still further advanced by the excellent work before us. We should be guilty of an unpardonable omission, did we not notice the admirable manner in which the book has been got up. It is printed on good, well glazed paper, the type is clear and large, and the binding very neat. It is in short, one of the best specimens of publishing, we have seen issue from the American Press.

R. L. M. D.

SCIENTIFIC INTELLIGENCE.

SURGERY.

[We have always been of opinion that much valuable matter is left out in the scientific intelligence of some of our contemporaries, by their omitting the discussions that have ensued upon the reading of the differ-

ent papers from which they copy extracts; and hence, we have adopted the custom [which we have reason to know meets the approbation of many of our readers] of giving in full, not only the paper itself, but the discussions held on it, as from the latter, not unfrequently, the greater amount of information is to be derived. The following series of articles we consider of great practical importance, and therefore reprint them, without abridgement, for the benefit of our readers:—]

Formation of an Artificial Anus. By Mr. ADAMS, of the London Hospital.

THE patient was a lady, aged 35, the mother of children. She had for a considerable time complained of great difficulty in passing her motions. This was accomplished with pain and much straining, and she was the subject of hæmorrhoids. She was hereditarily predisposed to cancer. About a year ago, a surgeon pronounced her case one of cancer of the rectum, with ulceration. The bowels were constipated nine days, and the usual purgatives were administered, and scruple doses of calomel, without effect. Her sickness was allayed by opium and sucking ice. The rectum-tube could not be passed above four inches. Scirrhus rectum, very high up, was presumed to be the cause of the obstruction. Metallic mercury, to the extent of two pounds, was given, a small quantity of which passed soon after. The operation was performed according to Dr. Luke's method. The descending colon and sigmoid flexure were undistended. In the course of a few hours, a large quantity of fluid fæces passed, and the relief was complete. She continued to progress favourably, and since the operation has been better than she had been for some years. Occasionally a small quantity of fæces pass per anum, but it is nearly all discharged by the wound; there is also occasionally a small quantity of bloody mucus passing per anum. A light truss is used to restrain the constant passage of the fæces, and there is a distinct tendency to pass them twice daily. A large quantity of the mercury passed by the wound soon after the operation, but a very considerable quantity was retained until a short time ago, and it then passed per anum. The patient was slightly salivated, apparently from the calomel, the mercury being unaltered.

Two cases in which the operation for Artificial Anus was performed.
By Mr. W. J. CLEMENT, F. R. C. S., Shrewsbury.

Case 1.—The author visited, on the 8th of October, 1841, a married woman, aged 47, who was suffering from obstruction of the bowels of fourteen days' duration, accompanied by great distension of the abdomen, hiccough, incessant vomiting, which during the last two days had become fæcal; the countenance was anxious; the pulse small, rapid, and

fluttering. It appeared that for the previous seven or eight years the patient had suffered from habitual constipation, and had required the constant use of drastic purgatives. The abdomen was tympanitic on percussion everywhere except on the right inguinal and iliac regions, where it was dull. It was evident, from the fact that several pints of fluid could be injected into the colon, that the obstruction was not in its descending portion. On the 10th, the symptoms having undergone no abatement, and the patient's state being evidently hopeless unless relief could be obtained by operation, it was proposed by the author, and performed on the same day. The patient was placed on her belly; the incision was made midway between the last rib and the crest of the ilium, extending from close to the spinal column to a line cutting the anterior superior spinous process of the ilium perpendicularly. The colon was found to be distended. It was secured by a couple of ligatures passed through its coats; and a vertical incision being made into it, a large quantity of liquid fæces escaped, together with much flatus. Immediate relief was obtained; the unfavourable symptoms ceased; the fæces were passed more or less freely through the wound, and at the end of six weeks the patient was able to walk a mile. About this time the discharge through the artificial anus became gradually less; at the end of seven weeks vomiting and colicky pains returned, but ceased after the expulsion of a mass of plum-stones, when a free exit for the fæces was again established. The patient lived for more than three years after the operation, enjoying tolerable health, and able to walk a considerable distance, and to attend to her domestic affairs. Aperient medicines were taken regularly, and the passage of fæces was pretty free. Plum-stones were passed at intervals; the total number collected was 116. The patient's health declined for some months before her death, the appetite decreasing, the strength failing, and emaciation progressing. On examination, a very complete stricture was found to exist in the transverse colon, which would not admit even the passage of a bristle. It was about a quarter of an inch in length. The coats of the bowel at this point were of a dense, white cartilaginous structure. The muscular coat of the cæcum and ascending colon was much thickened, and there was great distension of the gut behind the stricture. No traces of inflammatory action were to be found in the peritoneal cavity, with the exception of three membranous bands, which extended in a lateral direction, connecting the lower part of the ilium with the cæcum and ascending colon.

Case 2.—The driver of a mail coach, a stout, muscular man, aged 43, consulted the author in January, 1847, suffering from constipation and external piles. In the month of March the constipation had become more obstinate, and the patient was obliged to give up his occu-

pation. The symptoms were relieved by cupping on the loins, calomel, and other purgatives. On the second of April, rigors, which had occurred once during the month of March, returned, and were followed by vomiting, which continued for two or three days. Examination of the rectum showed the existence of a stricture about six inches from the anus. The attempt to pass rectum bougies of the smallest size failed. An elastic gum urethra bougie passed the obstruction, and upon withdrawing it, liquid fæces and flatus were voided. This operation caused great constitutional disturbance, rendering bloodletting, leeches, and calomel and opium, necessary. The discharge from the bowels was very slight; the vomiting recurred frequently. On the 12th of May, three small fleshy bodies, with a little feculent matter, were voided. No fæces passed from the rectum subsequently. During the remainder of the month of May the patient suffered greatly from hiccough, vomiting, and most troublesome tenesmus. On the 30th, the formation of an artificial anus was proposed, but declined by the patient. On the 18th June, feculent vomiting began, and returned on the 20th, and the patient then consented to have the operation performed. Examination of the rectum with the finger had given evidence of a morbid growth within the rectum, which was increasing in bulk. The operation was performed on the 20th June. No feculent matter having passed the rectum since the 12th of May, the abdomen was enormously distended. The incision was made on the left side, in the same direction as in the former case, but of greater extent. The bowel was secured by ligatures, and a free incision made into it, but nothing but flatus escaped. As moderate pressure over the abdomen had no effect in causing a discharge of fæces, the patient was placed in bed on his left side. The vomiting and hiccough continued; about eight hours after the operation an immense discharge of liquid faecal matter took place, and with some abatement of the symptoms. The author gives a detailed report of the patient's state during seven days following the operation, during which there was considerable constitutional irritation, with much tenderness of abdomen, and retention of urine. The catheter was passed repeatedly, but the secretion of urine was very scanty, the faecal discharge continuing more or less constant and copious. At the end of the week the improvement was very decided, and continued for ten days—viz., until July 8th, when acute pain in the left side of the abdomen and rigors occurred, followed by enlargement of the glands in both groins; and sloughing of the skin over the sacrum and right hip, which had begun four days after the operation, but subsequently had appeared likely to cease, began again to extend itself, in spite of the partial removal of pressure by means of the water-bed, &c. It was found, on examination, that the morbid growth occupying the rectum had increased very

much, and it was evident that the difficulty attending the emptying the bladder, was caused by its pressure. A tumour projected through the sphincter a few days before the patient's death, which bled on being touched. The enlarged glands in both groins continued to increase in size, and the skin in the left groin began to ulcerate. Death occurred on the 26th of July. No examination of the body took place.

The Descending Colon Opened in the Left Loin. By A. BAKER, Surgeon to the General Hospital, Birmingham.

On the 15th of August, 1849, the author was called to visit Mrs. T——, aged 62, who was suffering from severe pain in the umbilical and hypogastric regions, with retching and vomiting, fulness in the abdomen, flatulence, and constipation. The symptoms were at first attributed to her having eaten indigestible food, and were treated with that view. The symptoms for the most part disappeared, but the pain continued from time to time. On the 1st of October she had a recurrence of the symptoms, not referrible to any obvious cause; and again on the 11th. On the 9th of November, the author was summoned to her, and found many of the signs of intestinal obstruction present, and within reach of the tip of the finger, the rectum was found obstructed by a firm growth, occupying its whole circumference. Attempts were made for a few days, and with partial success, to unload the bowels, by passing a small œsophagus-tube into the stricture, by injections, and the use of purgative medicines. In a few days, however, constipation returned, and with symptoms of peritonitis. These symptoms were subdued, and diarrhœa came on; but this ceased spontaneously, and constipation returned gradually; and on the 17th of January, 1850, perfect obstruction took place. On the 23rd, the symptoms were so urgent, that an operation was proposed and assented to. The descending colon was opened in the left lumbar region, an incision being made transversely across the left loin for five inches. After the division of the muscles and fascia, the quantity of fat which presented itself was so great, that it was necessary to cut away part of it. The intestine was attached by four sutures to the skin before opening it. The opening was followed by the escape of a large quantity of semi-liquid fæces. The daily reports of the state of the patient after the operation are given by the author. She went on favourably, and on the 18th of April, it is reported that she got up, three weeks after the operation; that her general health is good; and that she has gained flesh. The lumbar opening is large enough to admit the index-finger, and the motions pass easily through it. She wore an ivory plug, attached to a padded steel plate, fastened by a belt; but after a time the plate was found inconvenient, and the plug was at-

tached simply to a plate of vulcanized India-rubber. Up to this time, she has remained free from symptoms of intestinal obstruction ; but within the last few months, has been attacked with symptoms which indicate that the morbid growth in the pelvis has extended to the abdomen. The author then gives his reasons for preferring the operation in the loin, in this case, to that proposed by Littré, which were—1st. That there was less risk of rekindling inflammation of the peritoneum. 2nd. That the presence of femoral hernia, which existed in this case, might have given rise to displacement and adhesion of the intestines, so as to interfere with the finding of the large intestine, in an operation at the groin. 3rd. That as the point of obstruction was ascertained, there was no need of any exploratory incision : and he then points out the general advantages of the operation selected. In commenting on the operation at the loin, the author adverts to the fact, that the appearance of the anterior layer of the lumbar fascia may induce the supposition that the intestine is arrived at, as it has at times a bluish green colour, and looks like intestine. But the longitudinal fibres which characterise the large intestine will not be seen ; and on making a careful puncture of the fascia, a protrusion of loose renal fat will take place ; and until this fat is reached, the operator may be sure that he has not arrived at the bowel. In speaking of the tendency which always exists, after these and all similar operations, to contraction of the cicatrix, the author expresses his belief that this tendency, in the present case, has materially lessened the habitual use of the plug, which, he says, was a great comfort to the patient, as it enabled her to go about, and mix with the world, without the fear of the accidental escape of the contents of the bowel ; and he adds that the patient was able herself to adjust the apparatus, and attend to the evacuations and to the dressing of the wound, without requiring the aid of any second person.

Case of Intestinal Obstruction. By Mr. J. LUKE, Surgeon to the London Hospital.

A BLACKSMITH, aged 30, was admitted into the hospital on the 16th December, 1851, under Dr. Pereira, complaining of rheumatic pains in the hips and knees, and with a history of having suffered from rheumatic fever seven years since. It was found, moreover, that there had been no passage through his bowels for five days, that the abdomen was tympanitic, very painful and tender to the touch, and that there was vomiting of all food and drink. The last motion passed had been a copious one. There was inguinal hernia on the left side, reducible. The usual means were employed for four days after his admission, with-

out, any abatement of the symptoms taking place. On the third day, the vomiting became faecal. A stomach-pump tube introduced into the rectum met with obstruction at four, or five inches from the anus. The secretion of urine was plentiful; the pulse ranged from 80 to 90; soft and compressible. On the fourth day after admission, a consultation was held, when it was agreed that the seat of obstruction was probably in the upper part of the rectum or sigmoid flexure of the colon. Owing to some abatement of the symptoms this day, the operation was not determined upon. The next day, another consultation took place, and the patient's state having become worse in the interim, the operation was determined upon, and performed by the author. A perpendicular incision, about two inches long, was made above Poupart's ligament, on the outside of the course of the epigastric artery. The incision through the peritoneum was about an inch long, through which the finger being introduced, it was found that the portion of the rectum within reach of the sigmoid flexure, and the descending colon above it, was contracted and healthy. The small intestines were distended, and a portion of them, on being drawn through the aperture, was found to be discoloured. The incision was enlarged to the extent of three inches, and a careful exploration was made, but without discovering the seat of stricture. The patient becoming exhausted, the wound was closed, and he was sent back to bed with an opiate, which was ordered to be repeated at intervals, if necessary. The symptoms of obstruction increased, the pulse became accelerated and more feeble, and the patient died on the fourth day after the operation. On examination, the small intestines were found to be much distended, and there were marks of recent but not very intense inflammation. The whole length of the colon was found to be empty and contracted; the cæcum contained a hard lump of faeces. About four feet of small intestine above the valve were empty and contracted, beyond which there was a sudden distension of the gut. At this point the cause of the obstruction appeared to exist in a narrow band, which completely encircled the gut from one surface of mesentery to the other, and which was considered to be congenital. About three or four inches below the band there was a diverticulum three inches in length. Adhesions had taken place between the surfaces of the wound, and also between it and the omentum lying in contact with it.

The time of the Society having expired, and there being another paper on the subject unread, it was arranged that Mr. C. Hawkins' paper should stand over until the next meeting, and the discussion on all the cases take place afterwards.

FEBRUARY 24, 1851.

Case of Stricture of the Colon, successfully Treated by Operation after thirty days' Obstruction; with an analysis of forty-four cases of Artificial Anus. By CÆSAR H. HAWKINS, Surgeon to St. George's Hospital.

In this case a lady, aged about 44, was relieved by the performance of Amussat's operation on the descending colon, in August, 1851, from the effects of nearly complete obstruction in the sigmoid flexure of the colon, and continues in good health to the present time, experiencing so little inconvenience as to be able to enter as usual into society, the artificial anus being kept free by means of an ivory plug of proper size and length, the natural passage being only in part restored. The author proceeded to say, that although M. Amussat could only find six instances of artificial anus, when he brought forward his Memoirs in 1839 and 1841, the operation had been performed in almost every year since that time, and four persons were now living in London, whose lives had been saved by its performance, and therefore he thought that sufficient cases might now be brought together to show what was the real value of the operation in surgery. He had therefore framed tables of every published case with which he was acquainted, and of seven unpublished cases besides his own, for the particulars of which he was indebted to the operators. The tables were divided into those which had been operated on through the peritoneum, seventeen in number, and those in which the bowel had been opened external to the peritoneum, which amounted to twenty-seven cases; and they showed the name of the operator and the date of the operation, with references to the published accounts of each case; the sex and age of each patient; the nature of the obstruction; the part which had been opened, and the mode in which the operation was performed; and the result, with the date of the death or of the last account of the case; and, finally, the cause of death and the condition of the patient if alive. The *results* of the operations were next tabulated, from which it appeared (omitting one case in which the operation was performed for fistula) that ten had died within forty-eight hours after the operation, and twenty-one within the first five weeks; and that twenty-two only could be fairly considered as having recovered from the operation. It was next shown, that of the twenty-two which recovered, six died in about six months from the time of the operation; others were still alive, or were so at the last known date; and that only *nine* patients were as yet known to have survived as much as one year. Against this apparently unfavourable result the author brought forward proof that, whatever the time was that the patient had survived, the life had in every case been clearly pro-

longed by the operation, since Mr. Luke's case was the only one in which the feces had chiefly passed by the natural anus after the operation; in Mr. Clement's case, which lived three years, not even flatus had passed per anum; and in Mr. Maitland's case none whatever had passed naturally after the first two years, although the patient survived the operation seventeen years. A number of tables were next brought forward, but were only partially read at the Society, to show how far the results might be influenced by different circumstances. The sex of the patients did not appear to have any influence; the table of ages showed the curious fact that of eight persons not exceeding thirty, who had been operated on, no less than five had died, while of seven exceeding sixty, only two had died; but nevertheless, the age exerted less influence than might be supposed from this circumstance, since the cases below forty and those above fifty, each showed nearly an equal number of deaths and of recoveries. The table of diseases for which the operation was performed, showed that no less than seventeen were believed to be cancerous; but although the immediate deaths were slightly increased by the debility of cancer, the deaths of those that recovered were not produced at an earlier period than in non-malignant diseases. It was next shown from the tables of the assigned or apparent causes of death, both in those who recovered, and in those who died in the first five weeks, that scarcely any died of the operation, but that organic changes or other effects of the disease itself could in almost every case be clearly traced as the ground of want of success at first, or of death at an early period after the operation. The tables of the situation in which the artificial anus was made, led to remarks on the comparative propriety of Littré's or Callisen's operations, from which it appeared clearly right to operate externally to the peritoneum on the right side of the body; but the question was left undecided as to the descending colon, so far as the much smaller number of eight cases, compared with twenty, could decide the point; the dangers of peritonitis, the facility of keeping open the artificial anus, and the errors of diagnosis, being discussed *seriatim*, with reference to the choice of the mode of performing the operation. With regard to the latter point of the diagnosis, Mr. Hawkins showed that very few errors appeared to have been committed in deciding whether the opening ought to be made in the right or left colon, and consequently that there was no necessity for always operating on the right side, as M. Baudens had advised, even when the obstruction was believed to be in the rectum or sigmoid flexure. But the author brought under notice several cases, showing the difficulty of distinguishing whether an obstruction was situated in the small intestines or in the large, and that even when the peritoneum was opened, the seat of the

obstruction had not always been discovered, the difficulty being, as it seemed, liable to be increased still further by the existence or supposed existence of a hernia, of which some instances were also given at the conclusion of the paper.

MR. NORMAN begged the attention of the Society to one or two considerations in respect to the diagnosis of such obstructions—the real point of importance and difficulty in the question. These had occurred to him for cases that had come under his notice in practice, and he thought them deserving of attention. In the first place, the existence of diarrhœa prior to the complete obstruction. This had been alluded to as occurring in the case given to the Society by Mr. Adams on the former evening, and was the occasion of doubt and difficulty in a case that he (Mr. Norman) had attended some years ago. The subject, an elderly female, had laboured for some days under an attack of diarrhœa; the purging was frequent, though not profuse; and when it ceased, vomiting, which eventually became profuse and stercoraceous, with tympanitis and entire cessation of the ordinary fœcal evacuations, showed that there was a complete obstruction of the bowel at some part. This did not seem to be in the great intestine, on account of the large quantity of fluid which could be injected in enemata, and retained, and there was an entire absence of symptoms by which he, or others who saw the patient with him, could determine the situation of the obstruction. The patient died, and on a post-mortem examination, the coils of small intestine were found so matted together by old adhesions, that they could with great difficulty be separated from each other, and at length in the lower third of this gut was found a stricture, occasioned by the contraction of the plastic effusions of an old attack of peritonitis, which had reduced the calibre of the gut to that of a crow quill; nevertheless small scybalæ or pellets of solid fœcal matter, were found below the stricture. These had probably passed the stricture in a fluid state, and become more firm by subsequent absorption of the more liquid parts. In the next case that he would name the diagnosis of the cause of obstruction was rendered difficult by the fact that a previous attack, of a similar character, had terminated happily under medical treatment, and several years of perfect health had been enjoyed. The patient, a respectable tradesman, aged about 50, called on Mr. Norman for advice. Two evenings before, he had “felt bilious,” and had taken a dose of pills, which produced some action of the bowels, but without relieving him from any uncomfortable feeling of pain and fulness in the belly, nausea, and flatulence. Severe symptoms of intestinal obstruction, with distension of the belly, vomiting, and a constant pain on the left side of the umbilicus set in. At length, by the various means used, the symptoms abated, the bowels

began to act, the patient came down stairs, and seemed to be convalescent, so that two days before his death he cut out a pair of trousers, being a tailor. The same night, pain and the other symptoms returned with more severity, and were soon followed by a fatal termination. On a post-mortem examination, a loop of small intestine was found stric-tured in a ring produced by an appendix vermiformis at the end of a diverticulum of the small intestine, which crossed that bowel over the front of the spine, and adhered to the brim of the pelvis on the right side. The obstruction was altogether on the right side of the umbilicus, and below it; the pain altogether in the left side, and above the umbilicus. The patient was attended during his illness by Dr. Babington, Dr. Hare, and Mr. Balderson, along with Mr. Norman. It was in cases such as the above that information was needed to guide us in practice. As regarded the resort to surgical operations, when the rectum was the seat of obstruction, it appeared to him (Mr. N.) from all he had heard, and read, and seen, that the course was pretty clear, and that much important light had been thrown upon the subject by the excellent papers of that and the preceding evening.

MR. ADAMS said that the presence of diarrhoea before the occurrence of obstruction, as a diagnostic mark in these cases, had been illustrated in his own case; and he then briefly stated the chief points in it, which will be found in the abstract preceding.

DR. MURPHY inquired whether Mr. Cæsar Hawkins had performed the operation for artificial anus on infants with imperforate rectum, and whether it was likely to succeed in such cases? He (Dr. M.) had had it performed in one case, but it failed—mainly, he thought, from having been resorted to too late.

MR. ADAMS remarked that he had omitted to state that, in the case he had related to the Society, the patient now evacuated the bowels comfortably twice a day, and was healthier than she had been for years.

MR. CÆSAR HAWKINS had not performed this operation on infants. It had, however, been performed, sometimes with success, sometimes without. Of course much would depend on the individual case and the seat of obstruction.

MR. PARTRIDGE had, in one case of an infant born with imperforate anus, performed Amussat's operation. The child lived a few days.

MR. HODGSON said that undoubtedly the diagnosis of these cases was the most important point connected with them, and was surrounded with difficulties. It had been stated that the distended appearance of different parts of the intestines would aid us in pointing out the seat of obstruction, but this was an uncertain sign, and liable to lead us into

error, for in fat persons, or where the obstruction had long continued, there would be a general fulness, and no certain information could be gained from this sign. We should be aided much in our diagnosis, however, by a very careful study of the history of the case, going fully into its particulars, and inquiring as to where distension was first perceived, and other symptoms. From these inquiries, we might often form a pretty accurate guess where the obstruction was; but the most certain symptom as to whether the obstruction existed in the large or small intestines was to be found in the existence of vomiting and the history of this symptom. When the obstruction was low in the colon, the vomiting did not generally come on until some time afterwards, but when it was situated in the small intestines, it was an early symptom; and if in such cases the vomiting is not stercoraceous, the obstruction may be fairly supposed to be in the small intestines. When the obstruction was in the large intestines, the vomiting became faecal after the obstruction had existed for a shorter time than when it existed in the small intestines. The cases which had been read at the last meeting of the Society bore out this observation. He thought the preferable operation, when it was decided that the seat of obstruction was below that point, was Amussat's, in the left colon; for it was important that the site of the artificial opening should be as low in the intestinal canal as possible. When the opening was made in the small intestines, the patient became perfectly nourished, and soon sunk. In Mr. Clement's case, in which the opening was made in the caput coli; and the patient lived about three years, and death seemed to have been induced by atrophy, the body, when opened, was found very attenuated, probably from want of that part of alimentation which was consequent upon the processes which went on in the colon. It was best, therefore, that the opening, when practicably, should be made in the left colon. When this could not be effected, from the circumstances of the case, then the opening should be in the right colon. An artificial anus from the small intestines was justifiable, when the patient was informed that its chance of prolonging life to any considerable length was but very small. The objection to Amussat's operation was, that there was a great disposition in the orifice to contract, and to render the passage of the faeces difficult or impossible. This was no doubt the fact in some cases, but the considerations relating to nutrition above noticed, were sufficient to make an opening in the left preferable to one in the right colon, and still more so, in his opinion, than in the small intestines. After speaking of the services rendered by the authors of the papers to the settlement of the question, he said this operation, as proved by statistics, had been performed with as great a degree of success as many of the great operations in surgery.

Mr. W. H. W. remarked that in a case which had been under the care of Mr. Laver, at the Middlesex Hospital, a very simple mode of diagnosis was hit upon to determine in a case of obstruction, that it was the large intestines. There was tympanitis to some extent. A tube was passed up the bowel some distance, and an injection thrown up. The stethoscope was then applied to the abdomen, and on changing the position of the patient, the fluid was distinctly heard to traverse the right side. From this it was inferred that the large intestines were free from obstruction. This proved to be correct, as after death a band was found encircling a portion of the small intestine.

MR. MACILWAIN thought that in cases of obstruction the operation for artificial anus should be resorted to only as a last resource. He made some strong observations on the employment of powerful purgatives in cases where obstruction existed, and he related some cases to show their evil tendency.

MR. CÆSAR HAWKINS had little to say in reply. With respect to the diagnosis of the seat of obstruction by the distension of the colon above the seat of stricture, this could not be depended upon. This might be air alone, and mislead us in our diagnosis. When there was a soft and solid state of the colon on examination, it was more likely to aid us in our diagnosis. With regard to the vomiting as a symptom of the seat of obstruction, no doubt, as a general rule, this would hold good, as this symptom generally came on earlier when the small than when large intestines were the seat of obstruction. But in many cases, however, vomiting came on as early when the obstruction was in the large intestines as when it was in the small, and the converse of this also obtained. In his own case, vomiting was an early symptom, but it ceased after a few days.—*Lancet*.

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

On Sudden Death in the Puerperal State. By ALFRED H. MCCLINTOCK, M. D., F. R. C. S. I., Ex-Assistant of the Dublin Lying-in-Hospital.

(Continued from page 175.)

ABOUT the year 1808, Le Gallois, in the course of some experiments upon animals, observed in three different cases air to penetrate into the vena cava from the uterine veins, and that this was followed by instantaneous death. His son, writing twenty-one years afterwards—viz., 1829, after citing these experiments, asks this question: In many of the

cases of sudden death after delivery, might not this event have been caused by the entrance of air into the circulating system through the uterine vessels? We find Ollivier repeating the same suggestive query in 1833, in the article "Air" of the *Dictionnaire de Médecine*. Since then, the advance of obstetric knowledge has placed nearly beyond a doubt the possibility of such an occurrence, and thus added one other to the manifold causes of death in the puerperal state. To Dr. Rose Cormack belongs the praise of having elucidated this very obscure subject; and of his instructive essay I have largely availed myself in the subjoined remarks. His experiments and reasoning, together with subsequent observations, justify our drawing the following conclusions—1st, that the admission of a certain quantity of air into the current of the circulation is capable of destroying life almost instantaneously—a fact, indeed, which the records of surgical practice fully corroborates; 2ndly, that the possibility of air occasionally finding an entrance into the vascular system through the uterine vessels, seems highly probable; and 3rdly, that in some few instances of sudden death soon after delivery, the only cause for the catastrophe, which a minute inspection of the body could discover, was the existence of air-bubbles in the heart and vena cava.

It would be irrelevant to my present purpose to enter into the general question of the history and pathological effects of the presence of air in the veins. Those who are desirous of an enlarged acquaintance with this interesting topic, I would beg leave to refer to an essay by the late Dr. John Reid, published in the same volume with his other researches. This will be found to contain a most able and comprehensive analysis of all that is known on the subject.

The mechanism, so to speak, by which the introduction of air into the uterine veins can be effected, admits of being explained in a few words. The veins of the gravid womb present four remarkable characters—namely, their extraordinary large size; their freedom of inosculation; the total absence of valves; and their termination on the internal surface of the uterus at the site of the placenta, by large open orifices. If the uterus be examined soon after delivery at the full term, the majority of these apertures will readily admit a goose quill, and some will even allow the little finger to penetrate without laceration. During contraction of the uterus, all these openings are hermetically closed, but when it is relaxed they again become proportionately more or less patulous. From this it is manifest that the same condition of the organ which causes flooding, is exactly that which is indispensable for the ingress of air; so that the latter, when it does take place, is almost of necessity preceded or accompanied by hæmorrhage. This fact is of some value, viewed in connexion with the history and progress of those cases where

it was supposed that air had gained admission into the circulation through the uterine veins after delivery ; for Amussat found in his experiments upon the entrance of air into the venous system, "that the period of death was hastened considerably in those animals whose vessels had previously been depleted of part of their blood." (Reid.) But, it will naturally be asked, does the air ever gain access to the uterine cavity, for otherwise it could not possibly find its way into the vessels of the womb ? This question, I am of opinion, can safely be answered in the affirmative. Confining ourselves to the simple matter of fact, it may suffice to state, that Professor Meigs assures us he noticed the expulsion of air from the uterus immediately after delivery, "a great many times." Dr. Rose Cormack has made the same observation ; and I have myself remarked a similar occurrence on at least three or four different occasions. Dr. Meigs, in his Letters to his Class, minutely describes the process by which the air is drawn up into the uterus ; but it is unnecessary to delay you by quoting his remarks. With these considerations before us, then, we are in a position to adopt the language of Dr. Cormack :—"I have, therefore, (writes this gentleman), not only no difficulty in believing, but am constrained to admit that, should any impediment be offered, in such cases, to the free exit of air by the os uteri, it must be forced into the uterine veins, were their mouths not protected by coagula ; and thence it would rapidly pass, by the current of the circulation, up the vena cava into the right auricle." *London Journal of Medicine*. vol. ii., p. 941.)

The intensity of the symptoms when air is taken up by the uterine veins would seem, as in other cases, to depend very much on the quantity, and on the condition of the patient. Death may ensue in a few moments from the rapid distension of the right auricle with air, and its consequent inability to contract. This first danger over, she may still perish at a remoter period from asphyxia, induced by gradually augmenting pulmonary obstruction.

Dr. Cormack refers, in support of his views, to seven cases from different authentic sources, in all of which death was supposed to have been more or less directly occasioned by the passage of air through the uterine veins into the vena cava and heart. These cases, taken collectively, form a body of evidence which it is hard to refute. In six of them, the presence of air in the veins was demonstrated upon inspection of the body, and no one of those cases exhibited any other morbid lesion adequate to account for death. In all, with a single exception where there was prolonged retention and putrefaction of the after-birth, the fatal event took place within a very few hours after parturition. The symptoms which presented themselves in these cases were very various ; and those most frequently observed were by no means pathognomonic.

Great anxiety of countenance, embarrassed respiration, with a sense even of impending suffocation, and a weak, rapid, faltering pulse, seem to have been the prominent features of the cases where there was time for the development or observance of symptoms.

Besides the seven instances above alluded to as being adduced by Dr. Cormack, I find another recorded in the *Provincial Medical and Surgical Journal* for November 27, 1850, by Mr. Berry. The leading features of this case it may be well to give. A woman, aged 22, was delivered of her first child after a natural labour, at seven in the evening of June 17, 1850. The placenta came away in twenty minutes, unattended by any immoderate loss of blood. At half-past eight, she expressed herself comfortable, and at eleven took some gruel. At one o'clock of the same night, her husband, who lay in the room with her, became alarmed by the patient's difficult breathing and feeling of faintness, and immediately sent for her medical attendant, but before his arrival, at two o'clock, she was dead. She lived seven hours after delivery. "The cause of death could not be accounted for as there was no hæmorrhage, and apparently nothing in the condition of the patient to prognosticate such a termination. . . . Upon opening the abdominal cavity, the uterus was seen midway between the umbilicus and pelvis, the peritoneum covering it, and the intestines healthy, but pale; the stomach contained a small quantity of fluid; liver healthy; the kidneys presented a granulated appearance, and the uterine which remained in the bladder was ascertained to be, by the application of heat, slightly albuminous. Upon cutting into the uterus it was found empty, and the vessels where the placenta had been attached, patulous: the vagina contained, at its superior part, a moderately sized clot of blood; within the chest, both lungs were congested, and contained scattered tubercles within upper lobes; the heart was the size of a male heart, and apparently distended. Upon making an incision into it, a gush of air escaped, and the organ became flaccid; no blood was found in its cavities. About an ounce of serum was observed in the pericardium. The brain was healthy in every respect. No signs of decomposition existed in any part of the body." From the remarks of the writer of this case, it is plain the impression on his mind was, that the immediate cause of death could have been no other than the air in the heart. If this conclusion be denied, we are met by the question—How, then, is the woman's sudden decease to be accounted for? It is hardly possible, I think, that the granular disease of the kidneys, which she appears to have had, could have brought about the fatal event. This, however, I leave for the Society to determine. One point in the case deserves some consideration before admitting it to possess any value, and it is this, the

examination of the body was not made for at least fifty hours after the woman's death, which, be it remembered, took place in the month of June. Mr. Berry has expressly stated that there were no signs of decomposition present; still the fact I have mentioned diminishes in some degree, perhaps, the importance that would otherwise justly belong to the unusual circumstance of air being present in the heart. Dr. John Ramsbotham narrates a case which I am tempted to introduce here, from the resemblance in many of its features to the foregoing history, and from the presumptive evidence it affords that if special search had been made for it, air might probably have been found in the heart, and thus explained the cause of the patient's unexpected death. It was the lady's first child, and the labour was tedious, requiring the use of the forceps. "A dead child was soon produced into the world without any particular difficulty or accident, and as soon as it was born a quantity of offensive gas, with that olive-coloured fluid elsewhere mentioned, escaped from the vagina. Uterine action did not seem disposed to return, and after waiting some time a separated placenta was withdrawn. After this the uterus felt well contracted, and the woman was left in a favourable state between two and three o'clock. In the evening my friend called to inform me that this poor woman had died very suddenly and unexpectedly between five and six. All he knew about the matter was, that he was called in a hurry to the poor woman, who was represented to be in a fit, but he found her dead, with her belly much swelled. Anxious to learn the cause of so melancholy an occurrence, leave was obtained to open the body, which was inspected the next morning. . . . On dividing the parietes the intestinal canal was seen somewhat distended with gas, but the rest of the viscera were healthy. The uterus was much extended and felt flaccid; and on pressing it a quantity of fœtid gas escaped from per vaginam; after its escape the organ became still more flaccid. On opening into its cavity there was only one small coagulum at the os uteri. The appearance of the uterus on dividing the abdominal parietes was not unlike one at the fifth or sixth month of pregnancy. I must confess (continues Dr. R.) that before the uterus was handled or opened, I suspected death to have been occasioned by internal hæmorrhage: that certainly was not the case." (op. cit., p. 122).

Now, sir, from what has preceded, it may be safely asserted, that if the possibility of death from the admission of air into the uterine veins be not established on conclusive evidence, enough has still been adduced to show the absolute importance of making special examination for its presence in all obscure cases of sudden death following parturition. In conducting this examination our attention should be chiefly directed to the heart and vena cava. If air exist in the latter, it will probably be

discoverable through its coats; at all events, before cutting into it the heart should be taken out. Previously to doing this the great vessels leading to and from the organ should be tied, and then after its removal the right auricle and ventricle are to be carefully opened under water, by which process the escape of any air will at once be demonstrated.

There are strong grounds for believing, as has been already hinted, that the idiopathic asphyxia of M. Chevallier is merely another name for syncope. Discarding all preconceived opinions, and looking only to facts, we find very many examples recorded of sudden death from fainting, in which the condition of the heart was precisely similar to that described as having existed in M. Chevallier's cases. The decision of this question, however, does not affect my present object, nor the remarks which I have ventured to offer, though I admit that it is one of no small interest and importance.

I must now, sir, bring this communication to a close; on a future occasion I hope to resume the subject, and to proceed with the examination of the other causes which may suddenly destroy life in the puerperal state. So far you perceive I have been chiefly occupied with two only—viz., syncopal attacks and the entrance of air through the uterine veins. If I have succeeded in placing the detached fragments of our knowledge with respect to these in anything of a tangible or connected form, my humble endeavours will have been amply rewarded.

Dr. H. KENNEDY said that although he could not speak from experience, concerning the causes of sudden death in puerperal patients, yet he might say that he had met with it in other instances, which might be considered—at least to a certain extent—as bearing upon the subject of the present communication. In phthisis, for example, he had on some occasions known sudden death to occur long after the general symptoms which might lead to that result had subsided; and upon examination of the body after death the heart was found in the same flabby or atrophied condition, as it was found in the majority of cases of sudden death connected with the puerperal state. He was at a loss to understand why the heart should not be as frequently affected with debility as the brain, lungs, and other organs of the body. For his own part, he had reason to believe that a weak acting heart was far more common than was supposed, and if the heart of a puerperal patient was in this state, it was easy to understand how sudden death might take place in the way described by Dr. McClintock. With regard to the presence of air in the heart and veins, he was inclined to suspect that it was, in every case, the result rather of secretion or exhalation than of the entrance of air through the veins of the uterus, as suggested in the communication before the Society. He had seen it in

connexion with a fatty heart, and in one case the air had formed under the mucous membrane of the stomach. In two or three instances he had seen it in the heart and veins. In the case at Dundalk, mentioned by Dr. McClintock, the patient was remarkable for fatness, and if a search had been instituted, air would in all probability have been found in the heart and veins. Dr. Kennedy also observed that in many cases of fever, death had rapidly supervened during the convalescence of the patient. In his own practice he had not met with any instances where death had taken place under these circumstances; but many such were upon record; and he had seen one case where death had suddenly occurred, in a patient who made an exertion, which the system was not fitted at the time to undergo, in consequence, as he supposed, of the weak action of the patient's heart.

Dr. McCLINTOCK said that Dr. Kennedy's statement appeared to him to be one of considerable value. He (Dr. H. K.) had stated that on two or three occasions he had found air in the heart and veins. The cases in which he had seen it, were not, he believed, puerperal cases, but that circumstance did not affect what he was about to say. It had been assumed by Dr. Rose Cormack, that air never, under ordinary circumstances, existed in the vena cava, as, for example, in the case of a woman who died after a rupture of the uterus or some other accident, not resulting from positive disease. Such was the assumption, and certainly it was the most probable side of the question; but it should be borne in mind, that in questions of a medical or physiological nature, nothing ought to be taken for granted; and though Dr. Cormack had assumed that air had never been found in the heart or vena cava at a post-mortem examination, yet it was easy to believe that if air had made its way into those cavities, it might readily enough escape observation. With regard to the air being a secretion, he supposed he was to understand from what Dr. Kennedy had advanced, that it was secreted before the patient's death. Now, if such were the case, it seemed reasonable to expect that some symptoms would have occurred to throw light upon the post-mortem fact; but if, on the other hand, the air was generated after death, he must look upon it as a fact of great importance, and worthy of further investigation.

Dr. KENNEDY mentioned that some time since Professor R. W. Smith laid before the Pathological Society the details of a case of flabby heart, in which a quantity of air was discovered in the vena cava.

Dr. GEOGHEGAN—Devergie has recorded more than one case in which sudden death took place where no cause capable of explaining it could be discovered, except a spontaneous evolution of air which was observed in the right cavities of the heart and vena cava. The bodies

were quite free from putrefaction. With reference to the entrance of air *ab externo* into the uterine sinuses, such an occurrence was rendered probable, not alone by the fact stated by Dr. McClintock of the occasional indications of air in the maternal passages after labour, but was also borne out by analogous facts observed lately in some inquiries relative to the condition of the cerebral veins after decapitation. These latter were found loaded with air-globules, which had no doubt entered through the patulous orifices of the divided venous trunks. Now, between the condition of the inner surface of the uterus immediately after delivery, and that of a recent wound, there is (as maintained by French writers) a good deal of analogy.

Sanguineous Uterine Tumour.

SEVERAL of the later meetings of the Surgical Society of Paris have been occupied with the consideration of *Peri-Uterine Sanguineous Tumours*. M. Monod detailed a case which resembled displacement of the womb backwards, but which proved to be effusion of blood into the utero-rectal pouch. The tumour was punctured and gave issue to semi-coagulated blood. The patient died of peritonitis. M. Nelaton stated that he had met with six cases of this affection. He described the symptoms as very undecided, and not to be distinguished from those of other uterine maladies. The effusion generally appears first in the recto-vaginal cul de sac, whence it may extend into the iliac fossæ. In one of his cases simple puncture was sufficient to effect a cure, in others, larger incisions were required; in two, spontaneous evacuation of blood took place by the rectum.

M. Robert believes that these extravasations are formed gradually, a fresh addition being made at each menstrual congestion. He also spoke of the resemblance of the tumour thus formed, to the retroverted fundus. The diagnosis is made out by the aid of the uterine sound. It is still more difficult to distinguish them from pelvic abscess, especially when the broad ligaments are implicated. In attempting the evacuation of these large collections of blood, M. Robert prefers puncture with a trocar to incision with a bistoury. He speaks of one case in which the extravasation formed a tumour reaching nearly to the umbilicus, with great exhaustion and severe expulsive pains. In this case puncture was resorted to several times.

According to M. Huguier these extravasations may be situated between the uterus and rectum, or in the lower part of the peritoneum. He divides them into two principal classes:—1. Those situated beneath the peritoneum in the cellular tissue, which unites the uterus and rectum,

and extends on each side to the uterine appendages. 2. Those situate in one of the uterine appendages, and involving several varieties, such as—1. The pseudo-hæmatocœles which result from extra-uterine conceptions arrested in the second or third month. 2. Retention of blood in the genital cavities, or in the recto-vaginal cul-de-sac. 3. Hæmatocœle arising from rupture of the ovarian bloodvessels. The symptoms are a tumour felt in the posterior wall of the vagina, with obscure fluctuation, and displacing the uterus forwards.

FORSENIC MEDICINE.

[We have much pleasure in introducing to our readers the following article upon the use of chloroform, a drug very generally employed in this city, and throughout many parts of Canada, with the exception of Quebec, where we learn it is but sparingly employed, for what reason we know not. This article will give our readers a fair idea of how such investigations are conducted in France, as well as point out the necessity there exists for caution in the administration of chloroform:—]

*Procès intenté à un Médecin pour un cas de mort par le Chloroforme.
—Règles nouvelles pour l'emploi de la méthode.*

Le dernier numéro de la *Gazette Médicale de Strasbourg* renferme le compte rendu d'un procès intenté à un officier de santé du Bas-Rhin, pour un cas de mort par le chloroforme. Cette affaire, intéressante à plus d'un titre, mérite de fixer l'attention de nos lecteurs. Nous reproduisons plus loin les débats dans lesquels ont figuré à titre d'experts plusieurs professeurs de la Faculté de Strasbourg. La gravité de ce procès au point de vue de la responsabilité médicale, aussi bien qu'au point de vue des principes qui y ont été émis, nous oblige à nous y arrêter d'une manière toute particulière.

Dans le cas objet du procès, il a été unanimement reconnu que la mort avait été causée par le chloroforme. Le chirurgien traitant pas plus que les experts n'ont élevé le moindre doute à cet égard. C'est déjà un progrès. L'accusation d'homicide par imprudence reposait donc uniquement sur la question de savoir si le chirurgien, qui n'était qu'officier de santé, avait le droit d'administrer le chloroforme sans le concours d'un docteur, et si en l'administrant il avait observé les règles de l'art propres à garantir l'innocuité du remède.

Relativement au premier point, il a été reconnu par les experts et par le tribunal, qui a admis leur doctrine, que l'administration du chloroforme, comme moyen anesthésique, ne saurait être assimilée à une grande

opération chirurgicale. Toutefois MM. les experts, prenant en considération le danger auquel expose toujours la pratique de la chloroformisation, ont émis le vœu que cette application soit réservée désormais aux docteurs en médecine, comme offrant à la société des garanties plus sérieuses que les officiers de santé. On ne peut qu'approuver la sagesse de cette restriction. Cependant nous sommes obligé de le faire remarquer, il y a entre cette réserve, dictée par la prudence, et l'opinion émise par M. Sédillot, au sujet de l'innocuité du chloroforme employé avec précaution, une opposition qu'il est à peine nécessaire de signaler. Si la chloroformisation est toujours exempte de danger quand on l'emploie suivant certaines règles que l'honorable professeur a cru pouvoir préciser, elle ne doit pas plus être interdite aux officiers de santé que l'administration d'un agent toxique quelconque, la strichnine, l'acétate de morphine, etc. Toute la difficulté consiste donc à savoir si en réalité l'art est aujourd'hui en possession de règles qui garantissent toujours l'innocuité de la chloroformisation. Nous sommes heureux de le reconnaître, MM. les professeurs Tourdes, Rigaud et Cailliot ont été on ne peut plus circonspects à cet égard ; tout en recommandant les précautions reconnues les plus utiles, ils ont fait ce aveu : " que dans quelques faits " malheureux, ces précautions paraîtraient avoir été prises, sans qu'on " ait pu éviter un résultat fatal." On ne saurait trop applaudir à la sagesse et à la franchise de cette déclaration. M. Sédillot, beaucoup plus rassuré et plus convaincu, a affirmé devant le tribunal, comme il l'avait fait dans ses écrits, " que le chloroforme pur et bien administré ne tue " jamais." Cette affirmation, d'une gravité extrême, produite en présence de la justice, émanant d'un homme sérieux et justement considéré, doit être sévèrement examinée dans ses motifs. Si elle est suffisamment fondée en effet, elle marque un progrès qu'on ne saurait trop vulgariser ; si, au contraire, elle n'est que l'expression d'une conviction aventureuse, on ne saurait trop la combattre, dans la crainte qu'elle ne serve d'encouragement à des abus, ou de bouclier à des actes téméraires.

L'argumentation que M. Sédillot a développée dans ses derniers ouvrages et devant le tribunal consiste en une dénégation des faits contraires à sa manière de voir, et dans une affirmation appuyée sur les faits qui lui sont favorables.

On a vu précédemment que les collègues de M. Sédillot avaient reconnu que, " dans quelques faits malheureux, toutes les précautions capables de prévenir le danger avaient été prises sans qu'on ait pu éviter " le résultat fatal." M. Sédillot n'admet pas cela. Dans le cas poursuivi devant le tribunal, il s'inscrit en faux contre les témoignages les plus explicites. Des témoins déclarent avoir vu que le mouchoir imbibé de chloroforme avait toujours été tenu à distance : " M. Sédillot

“ n'accuse pas le sentiment consciencieux de ce témoignage, mais il “ n'hésite pas à *affirmer* qu'il manque d'exactitude.” Si on lui demande pourquoi ? Parce que le résultat lui paraît impossible, et il est impossible parce qu'il est contraire à la règle qu'il a posée. L'honorable professeur, analysant tous les cas de mort causés par le chloroforme, leur applique le même raisonnement. Il est arrivé à cette conviction, qu'en tenant le linge imbibé de chloroforme à une certaine distance du nez et en ne le laissant respirer que par petites doses, on ne fait courir aucun danger au malade ; il en conclut que, dans les cas de mort où cette précaution est réputée avoir été prise, elle ne l'a pas été, et que c'est par illusion pure qu'on a cru le contraire. Voyons donc sur quoi repose cette conviction inébranlable de M. Sédillot. Elle repose à la fois sur une certaine théorie qu'il s'est faite de la manière dont le chloroforme peut causer la mort, et sur l'expérience des cas assez nombreux, qui lui sont propres, de chloroformisation dans lesquels il ne lui est arrivé aucun malheur. Sa théorie est celle-ci : quand on fait respirer le chloroforme trop vite, en trop grande quantité à la fois et de trop près, les malades peuvent être frappés d'asphyxie ou de syncope, et ils succombent. Ce n'est donc pas, dit M. Sédillot, le chloroforme qui tue, mais la manière vicieuse dont on l'emploie. Inutile de s'arrêter à cette subtilité, qui ne repose que sur un abus de langage. Tout le monde comprend en effet qu'on aurait beau employer de cette manière une substance non toxique, on ne parviendrait jamais à tuer les malades. La doctrine de M. Sédillot n'est qu'un perfectionnement, qu'un raffinement de celle qu'on a tenté naguère de faire prévaloir au sein de l'Académie, lorsqu'on a prétendu que tous les cas de mort attribués au chloroforme avaient été le fait des appareils employés, le résultat de l'asphyxie causée par ces appareils, et non l'effet du chloroforme, incapable de produire la mort par lui-même. L'asphyxie de M. Sédillot n'est pas aussi mécanique que celle du rapport de la commission du chloroforme, mais c'est toujours le même nonsens, et surtout la même méprise, quoique moins grossière. Pour le démontrer sans réplique, que faut-il ? Il suffit de faire remarquer que des milliers de cas de chloroformisation pratiquée contrairement aux règles posées par M. Sédillot n'ont été suivis d'aucun accident d'asphyxie ou autres. Ce n'est donc pas dans le mode d'emploi du toxique que gît le danger, et les résultats plus ou moins nombreux que le savant professeur de Strasbourg invoque en faveur de son procédé ne prouvent pas plus ni mieux que les succès des autres méthodes ne prouvent la parfaite innocuité du chloroforme. Il est des personnes, il est vrai, qui croient encore le contraire. Il en est même qui, comme M. Gibert, par exemple, continuent à être doués d'une confiance si robuste, que malgré les cas de mort connus, qui dépassent aujourd'hui la centaine, persistent à

regarder le chloroforme comme un agent parfaitement innocent, et déclarent ennemis de la science et du bien public, comme disait Broussais, quiconque n'est pas de cet avis. Quant à nous, nous ne sommes rassuré ni par la foi de M. Gibert, ni par la logique de M. Sédillot. Nous persistons à croire qu'il faut chercher ailleurs que dans l'influence des appareils asphyxiants ou des méthodes de chloroformisation trop brusques et trop immédiates les véritables dangers du chloroforme. Pour les bons esprits, la preuve de cette assertion est vulgaire et se rencontre à chaque pas. Cette preuve, la voici : La même dose de chloroforme, employée suivant la même méthode, avec les mêmes précautions, produit chez l'un une anesthésie subite ; chez un autre, elle ne produit aucun ou presque aucun effet. Retournez l'observation. Chez un malade, telle dose produit l'anesthésie simple ; chez un autre, très-exceptionnellement à la vérité, elle produit la mort. C'est-à-dire, n'est-ce pas, que dans l'un et l'autre cas les susceptibilités diffèrent et produisent des résultats souvent opposés. Comment une vérité aussi simple a-t-elle pu être contestée ou méconnue ? Parce que, au point de départ fixe et certain que nous avons proposé, on a préféré les confusion de la théorie. Nous avons dit : A une dose déterminée, le chloroforme tue toujours et quels que soient les organismes ; cela n'est pas contestable. A des doses moindres, il perd de son action toxique, mais il la conserve en proportion relative aux dispositions individuelles. Quelles sont ces dispositions ? Voilà le vrai problème à résoudre. Et c'est ce que M. Sédillot a complètement méconnu. Nous sommes loin de contester l'influence du mode d'application qui peut plus ou moins favoriser le développement des accidents dans certaines conditions qui les priment. A ce point de vue, on ne saurait trop louer M. Sédillot d'avoir montré tous les avantages qui peuvent résulter d'un mode d'emploi plus rationnel et plus circonspect de la méthode. Mais s'il persiste à s'en tenir à ce moyen de sécurité, nous craignons bien qu'au moment où il s'y attendra le moins, il lui fasse complètement défaut.

Canada Medical Journal.

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CANADA MEDICAL JOURNAL.

IN another part of this number our readers will find the proceedings of the College of Physicians and Surgeons of Lower Canada, which took place at their semi-annual meeting, held in Montreal, May 11: and they will also find Dr. Arnoldi's formal protest against some of those proceedings. It is not our intention to offer any opinion upon the question at issue, as we have determined to avoid the discussion of medical politics, leaving to others, whose tastes lie in that way, the agreeable task. We cannot refrain, however, from remarking, that the sooner the important point referred to by Dr. Arnoldi, is settled, the better it will be for the profession, for we know that some of the members of the College have tried to dissuade students from being apprenticed, who afterwards were indentured to ourselves, and others have been advised to pursue a course of study in direct opposition to the enactments of the College, who commenced their studies at a period sufficiently recent to admit of their complying with all its requirements. Such a contradiction cannot long continue; the College either has the power to enforce obedience, or it has not. The solution of this question is what we wish to see established. If it has the power, by all means let it exercise it; if it has not, it must demand from the Legislature additional powers, for it can never be tolerated, that one set of students are to be obliged to comply with the very letter of the law, and another set are taught to set at defiance, and evade not merely the letter, but the very spirit of that law. We hope to see established a uniform standard of medical education for students both in Upper and Lower Canada, and, therefore, look forward with anxiety to the settlement of the above question.

We cut the following from our Toronto contemporary, from which it appears that the Yankee custom of suing for mal-practice is commencing. To such an extent was this carried a few years ago, in the

States, that even the most eminent surgeons used to refuse to undertake the management of a case, unless the patient, or his relatives, if he were a minor, bound themselves legally, not to institute proceeding for mal-practice, if the case did not terminate successfully. To pay a medical bill is a great annoyance to many people, but how pleasant to square off accounts with a threat for mal-practice, or to mulct some unfortunate doctor in heavy damages, for not restoring an irremediably shattered limb to a perfect state. We hope, however, that the result of this attempt to persecute a learned and honourable physician, will serve as a warning to all evil doers, and that some of the profession who are ever willing to drag their brother practitioners into courts of justice, and who encourage the public to do so, will likewise take a hint from it. We are satisfied, that the majority of these suits are entered upon, at the instigation of rival practitioners, and we regard their frequency as the best index of the bad state of professional feeling, where they occur. •

We congratulate Dr. King on the verdict he obtained, and advise him, in future, to send all patients like Green to the Infirmary, where the nature of the accident, and the conduct of the patient can be attested by several witnesses.—R. L. M. D.

* A trial of much interest took place yesterday at the assizes before the Chief Justice. A man named Green, a carpenter by trade, brought an action against Dr. King for improper attendance, alleging that, in consequence of it, he had lost the use of his left arm. Several witnesses, on the part of the prosecution, stated that Dr. King had undertaken to attend upon Green, but had sent Dr. Lyons instead. Dr. Lyons, it was alleged, was incompetent and unskilful, and had caused Green to lose the use of his arm; and that he in consequence looked to Dr. King for damages. On the part of the defence, it was testified that Dr. King dressed Green's arm (which was fractured by a fall,) only once, as an act of charity, and told him to go to the hospital. Also that Dr. King had not sent Dr. Lyons to him. Both Dr. King and Dr. Herrick proved that Lyons was a skilful man, and understood his profession perfectly. Dr. Lyons stated that Green had not attended to directions which had been given him, but pulled off the bandages from his arm of his own accord, and contrary to his (Dr. Lyons') directions. The Chief Justice charged the Jury at great length. They retired, and after an absence of about half an hour, returned into Court with a verdict for the defendant, on the ground that they were not satisfied that the Plaintiff was a patient of Dr. King's. The verdict was received with marked satisfaction by the multitude in court."—*Toronto Colonist*.

COLLEGE OF PHYSICIANS AND SURGEONS.

Montreal, 11th May, 1852.

THE regular semi-annual meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada was held this day, when were present:

Drs. Morrin,	Drs. Bardy,	Drs. Dubord,	Drs. Holmes,
Brigham,	Russel,	Fowler,	Bouthillier,
Glines,	Hall,	Chamberlin,	Jackson,
Badeau,	Campbell,	Nelson,	Sutherland,
Marsden,	Michaud,	Weilbrenner,	Arnoldi.
Johnston,	Valois,	David,	

Dr. Morrin, President, having assumed the chair, Dr. Nelson rose and said he begged to thank the Members of the College for the compliment they had paid him, in not accepting his resignation at their last Meeting. In all his intercourse with them he had always experienced the kindest feelings from his brethren of the Board, and, although he felt himself compelled to resign, he should still continue to take a lively interest in the welfare of the College, as by its success, the dignity of the Profession and of its Members would be greatly advanced. Dr. Nelson then retired.

The minutes of the last meeting were then read, after which, the Secretary announced the death of one of the Governors of the College for the district of Montreal, when it was moved by Dr. Weilbrenner, seconded by Dr. Valois, and unanimously resolved: "That this Board has heard with regret of the death of the late Dr. Kimber, of Chambly, one of the Governors of the College, and that a copy of this resolution be sent by the Secretary to his nearest relatives." The Board then proceeded to fill up the vacancies caused by the resignation of Dr. Nelson and the death of Dr. Kimber. Drs. Bardy and Valois having been named Scrutineers. Dr. Smallwood was declared duly elected as one of the Governors for the District of Montreal in Dr. Kimber's place, and Dr. Bibaud for the City, in Dr. Nelson's.

The votes next being taken for Vice-President of the District of Montreal, Dr. Holmes was declared duly elected. Dr. Holmes returned thanks for the honour conferred on him.

Drs. Bibaud and Smallwood after being introduced took their seats at the Board.

A petition was read from Dr. Teesdale, but the Board could not accede to the request contained in it.

The Secretary called the attention of the Board to the fact, that se-

veral gentlemen, who presented themselves for examination, had only passed their *preliminary examination* during their studies, and not at the commencement, as required by the Law, on which Dr. Arnoldi moved, seconded by Dr. Bibaud, "That all applicants who commenced their medical studies prior to having submitted to a preliminary examination, in consequence of having been led into error on this point, be admitted this day to examination, their past time to be allowed to count, but that hereafter the Board do never listen to, nor entertain any such excuse," which motion was lost.

Some discussion now arose as to the powers of the Board to refuse licenses to certain Graduates of McGill College, who had not conformed to the law in passing their preliminary examination. An opinion was read from the Hon. Mr. Black, stating that the Board could not refuse licenses to any one presenting a degree or diploma from McGill College, and upon the gentlemen being brought in, Dr. Arnoldi entered his protest against their receiving their licenses. [See protest below.]

The following gentlemen possessing degrees were then brought in, and, after having been duly sworn, received their licenses:

James McFarlane, M. D.,	...	Edinburgh,
W. Boswell, M. D.,	.....	Dublin,
John Reddy, M. D.,	.....	Glasgow,
Joseph Garvey, M. D.,		McGill College,
Henry T. Ridley, M. D.,	"	"
John Easton, M. D.,	"	"
Geo. H. Boulter, M. D.,	"	"
B. G. G. Demorest, M. D.,	"	"
Allen Ruttan, M. D.,	"	"
Richard Weir, M. D.,	"	"
Ed. Buck, M. D.,	"	"
Eric Sparham, M. D.,	"	"
Victor Perrault, M. D.,	"	"
Angus McDonell, M. D.,	"	"
Joseph Moore, M. D.,	"	"
Robert Thompson, M. D.,	"	"
Newton S. Powell, M. D.,	"	"
Amable Simard, M. D.,	"	"

The Board then divided into committees and proceeded to examine:—

When Messrs. Alfred Desjardin, Chs. F. F. Trestler, C. M. D. Cameron, Adolphe Bruneau, Henri J. Girouard, and A. DeCouagne, being found qualified, were granted their licenses, as was also Dr. Teesdale, an American graduate. Two Gentlemen were rejected.

The following were, after examination, admitted to enter upon the study of medicine:—

Herbert O'Meara,	Fred. Benoit,
Aug. Weilbrenner,	Timothé Sauriol,
Chs. L. Augé,	Ambroise Tremblay,
Henry Webster,	Louis D. Cyr,
H. O. Donoughe,	Siméon Varnier,
Alex. G. Lachlan,	Chs. Picault,
Casimir Dufresne,	Joseph Dupuis,
Fras. Bechard,	A. DeMartigny,
James B. Turner,	Patrick O'Leary,
Gideon Lafleur,	Mesquile Palardy.
Henri St. Germain,	

And three were rejected.

One Gentleman, presenting a diploma from the College of Surgeons of London, refused to submit to an examination on the Practice of Medicine, therefore did not receive his license.

Drs. Marsden, Weilbrenner and Badeau, having been appointed to examine the Treasurer's accounts, reported them correct.

The Board then adjourned.

A. H. DAVID, M. D.,
Secretary.

COPY OF PROTEST.

ON this Day, the twenty-fifth of May, in the year of our Lord one thousand eight hundred and fifty-two, we the undersigned Public Notaries, duly commissioned and sworn in and for that part of the Province of Canada heretofore constituting the Province of Lower Canada, residing in the City of Montreal, in the said Province, at the request and instance of Francis Cornelius Thomas Arnoldi, of the said City of Montreal, Esquire, Physician and Surgeon, went to the residence of Andrew Ferdinand Holmes, in the said City of Montreal, Esquire, Physician and Surgeon, one of the Vice-Presidents of the College of Physicians and Surgeons of Lower Canada, and to the residence of Aaron Hart David, in the said City of Montreal, Esquire, Physician and Surgeon, one of the Secretaries of the said College of Physicians and Surgeons of Lower Canada, where, being and speaking to each of them, personally declared and made known unto the said Andrew Ferdinand Holmes, and Aaron Hart David, in their capacities aforesaid; That whereas in virtue of the Act to incorporate the members of the Medical Profession in Lower Canada, and to regulate the Study and Practice of Physic

and Surgery therein, X and XI Vict., chap. XXVI, the twenty-sixth day of July, one thousand eight hundred and forty-seven, it was stipulated as follows: "That the Laws now in force in Lower Canada, for regulating the Practice of Medicine, Surgery and Midwifery, require amendment; and whereas it is highly desirable that the Medical Profession of Lower Canada aforesaid be placed on a more respectable and efficient footing, and that better means should be provided for the conviction and punishment of persons practising the same without License."

And whereas it is enacted, by the eighth clause X and XI Vict., chap. XXVI, That from and after the passing of this Act, no person shall be admitted as a Student of Physic, Surgery or Midwifery, unless he shall have obtained a certificate of qualification from the said Provincial Medical Board.

And whereas it is enacted by X clause of the same chapter, that the said College of Physicians and Surgeons shall have the power: Firstly, To regulate the Study of Medicine, Surgery, Midwifery, and Pharmacy, by making rules with regard to the preliminary qualification, duration of study, curriculum to be followed, and the age of the candidate applying for a certificate to obtain a License to practise &c.: Secondly, To examine all credentials purporting to entitle the bearer to a certificate for License to practise in this Province, and to oblige the bearer of such credentials to attest (on oath to be administered by the chairman for the time being,) that he is the person whose name is mentioned therein, and that he became possessed thereof honestly.

And whereas, by the By-laws, rules and regulations of the College of Physicians and Surgeons of Lower Canada, amending and approved of, on the tenth day of October, in the year one thousand eight hundred and forty-eight, by His Excellency the Right Honourable James, Earl of Elgin and Kincardine, Governor in chief, in and over the Provinces of Canada, &c., &c.

"It is expressly stated in the rules and regulations, that candidates for Provincial License commencing their Studies subsequently to the passing of the act of Incorporation of this College (on the twenty-eighth day of July, one thousand eight hundred and forty-seven,) will require to submit to a Literary and Classical examination on entering upon their Studies."

"That, at the preliminary examination, the candidate must furnish proof of his possessing a good moral character and a competent knowledge of Latin, History, Geography, Mathematics and Natural Philosophy; and that from and after the year one thousand eight hundred and fifty, he must also possess a general knowledge of the French and English languages."

Wherefore we the said Notaries, at the request aforesaid, and speaking as aforesaid, did, as by these presents we do, most solemnly protest as well against the said Andrew Ferdinand Holmes, and Aaron Hart David in their said capacities, as against Joseph Morrin, the President of said College, Jean Blanchet, one of the Vice-Presidents, Pierre Martial Bardy, one of the Secretaries, James Arthur Sewell, Alfred Jackson, Jean L. Nault, William Marsden, Robert H. Russel, March Paschal De Sales La Terrière, Alexis Thomas Michaud, Anthony Von Iffland, David S. Marquis, Ludger Tetu, Joseph Marmette, Tiburce Charest, George Badeau, William A. Robert Gilmor, Louis Edouard Dubord, William Hollingworth Fowler, James Bell Johnston, M. Sylvester Glines, George William Campbell, William Sutherland, Archibald Hall, Hector T. Peltier, Joshua Chamberlain, M. F. Valois, Remy Claude Wilbrenner, Thomas Bouthillier, Stephen Sewell Foster, Josias S. Brigham, Charles Smallwood and Jean Gaspard Bibaud, officers of said College of Physicians and Surgeons of Lower Canada, and all others whom the same doth, shall, or may in any wise concern, against the validity of the several Licenses granted, and the right or power of the said Board of the said College of Physicians and Surgeons to assume and take upon themselves to grant such Licenses to Joseph Garvey, John Easton, George H. Boulter, Buckham, G. G. Demorest, Allen Ruttan, Richard Weir, Edward Buck, Victor Perrault, Angus MacDonnell, Amable Simard, Joseph Moore, Robert Thompson, Newton W. Powell, Eric Sparham and Henry Ridley, at the meeting of the Board of Governors of the said College of Physicians and Surgeons of Lower Canada, held on the eleventh day of May instant, and which said meeting was held according to Law for the purpose of admitting Gentlemen to the Study of Medicine for the examination of Students, and for the granting of Licenses to such as produced degrees or diplomas, lawfully obtained from Universities or Colleges in her Majesty's Dominions, inasmuch as the degrees produced by the said Joseph Garvey, Henry J. Ridley, John Easton, George H. Boulter, Buckham, G. G. Demorest, Allen Ruttan, Richard Weir, Edward Buck, Eric Sparham, Victor Perrault, Angus MacDonnell, Amable Simard, Joseph Moore, Robert Thompson, and Newton W. Powell, obtained respectively this Spring at the University of McGill College, were obtained in accordance with the statutes which regulate the medical curriculum of the said College only, and not in conformity with, but on the contrary and in direct contravention of, the clauses, rules and regulations above mentioned, and for all which we do hereby most solemnly protest.

And to the end that the said Andrew Ferdinand Holmes and Aaron Hart David, in their several capacities, may not plead ignorance in the

premises, we have served them each respectively with a copy of these presents, in signification thereof speaking as aforesaid.

Thus done and protested at the said City of Montreal, on the Day, Month, and Year first, before written and executed under the number one thousand three hundred and forty.

In testimony whereof, we have hereunto set our hands.

(Signed,)

H. J. MEYER, N. P.
JOHN C. GRIFFIN, N. P.

A true copy of the original herein remaining of record in my office.

H. J. MEYER, N. P.

DUBLIN HOSPITALS.

[It was contemplated by the late Imperial Ministry to withdraw gradually the Government support from all the Hospitals in Dublin, receiving aid from that source, but, owing to the strong remonstrances sent in by the Colleges of Physicians and Surgeons, and the profession generally, backed by the advice of Lord Clarendon, the project was abandoned. The following report was called for by the Government, and is now published under its sanction. There are many practitioners in Canada who look back with interest to the once doomed Institutions, who will be glad to learn that the fatal blow has been averted, and that their old haunts are still in existence and flourishing. For their information we publish the following documents] :—

Return to an Order of the Honourable the House of Commons, moved for by G. A. Hamilton, Esq., M. P.

RICHMOND SURGICAL HOSPITAL.

Return setting forth the Number of Admissions into the Richmond Surgical Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851; and also of the Numbers of such Persons, as far as can be ascertained, as were resident in the City of Dublin at the period of their Admission.

	1849.	1850.	1851.	Total.
Admitted.....	1,577	1,418	1,349	4,344
Resident in the City of Dublin.....	1,109	1,001	942	3,052

(Signed,)

HENRY H. STEWART, Governor.

Return showing the Number of Medical Pupils who attended at the Richmond Surgical Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851; and also the Number of Lectures,

Clinical, or other, delivered in connexion with said Hospital by the Physicians or Surgeons attending the same.

	1849.	1850.	1851.	Total.
Pupils attended.....	87	92	96	275
Clinical lectures delivered.....	} More than 100 lectures by the surgeons and physicians; and also clinical instruction in going through the wards of the hospital.			
Other lectures delivered.....				

N.B.—The Richmond Surgical, and the Whitworth and Hardwicke Medical Hospitals, constitute one institution for the relief of the sick ; and also for clinical, surgical, and medical instruction.

HARDWICKE FEVER HOSPITAL.

Return, setting forth the Number of Admissions into the Hardwicke Fever Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851 ; and also of the Numbers of such Persons, as far as can be ascertained, as were Resident in the City of Dublin at the period of their Admission.

	1849.	1850.	1851.	Total.
Admitted.....	2,479	2,362	2,187	7,028
Who were Resident in the City of Dublin...	2,163	2,104	1,995	6,262

(Signed,) HENRY H. STEWART, Governor.

Return, showing the Number of Medical Pupils who attended at the Hardwicke Fever Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851 ; and also the Number of Lectures, Clinical or other, delivered in connexion with said Hospital by the Physicians or Surgeons attending the same.

	1849.	1850.	1851.	Total.
Pupils attended.....	87	92	96	275
Clinical Lectures delivered.....	} More than 100 lectures by the physicians and surgeons; and also clinical instruction in going through the wards of the hospitals.			
Other Lectures delivered.....				

N.B.—The Hardwicke and Whitworth Medical Hospitals and the Richmond Surgical Hospital constitute one institution for the relief of the sick, and also for clinical, medical and surgical instruction.

WHITWORTH CHRONIC HOSPITAL.

Return, setting forth the Number of Admissions into the Whitworth Chronic Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851 ; and also of the Number of such Persons, as far as can be ascertained, as were resident in the City of Dublin at the period of their Admission.

	1849.	1850.	1851.	Total.
Admitted.....	1290	1255	1151	3696
Who were resident in the City of Dublin...	1015	997	910	2922

(Signed,) HENRY H. STEWART, Governor.

Return, showing the Number of Medical Pupils who attended at the Whitworth Chronic Hospital of the House of Industry, Dublin, during each of the Three Years ended 31st December, 1849, 1850, and 1851; and also the Number of Lectures, Clinical or other, delivered in connexion with said Hospital, by the Physicians or Surgeons attending the same.

	1849.	1850.	1851.	Total
Pupils attended.....	87	92	96	275
Clinical Lectures delivered.....	} More than 100 Lectures by the Physicians and Surgeons, and also Clinical instruction in going through the Wards of the Hospital.			
Other Lectures delivered.....				

N.B.—The Whitworth Medical, Richmond Surgical, and Hardwicke Fever Hospitals, constitute one institution for the relief of the sick, and also for Clinical, Medical, and Surgical instruction.

DOCTOR STEVENS' HOSPITAL, DUBLIN.

Return of the Number of Patients admitted during the Three Years, as follows; also, the Numbers who received Out-door Relief during the same period.

Year ended.	Admitted.	Cured.	Relieved.	Died.	Dispensary.
December, 31 1849	2,671	2,366	314	91	10,218
December, 31 1850	2,332	1,957	290	85	4,895
December, 31 1851	2,322	1,929	298	100	11,126
	7,025	6,252	797	276	27,239

Number of Pupils attending during the Three Years, as follows.....	1849 ..	69
	1850 ..	57
	1851 ..	59

Number of Lectures delivered during the Winter Sessions of the Three Years, as follows:

Years.	Medical Lectures.	Surgical Lectures.
1849 ..	48	48
1850 ..	48	48
1851 ..	48	48

The average number of patients from the country is about one-third. The generality of them give Dublin as their residence, owing to an idea, prevalent among them, that patients from the country are not admitted without interest with the medical officers.

J.W. CUSACK, Jun., M.D., Resident Surgeon.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Statement for the Three Years ending 31st December.....	1849.	1850.	1851.
Number of patients relieved.....	1867	1298	1276
Number of ditto residing in the city.....	840	741	779
Number of pupils attending.....	109	99	101
Number of lectures.....	136	136	136

This hospital being the county infirmary, the number of patients admitted from the city is comparatively small.

(Signed,)

EDWARD B. STANLEY, Registrar.

HOUSE OF RECOVERY AND FEVER HOSPITAL, CORK STREET.

				Number Received.	Pupils Attending.	Lectures Delivered.
1849	..	..	..	2818	} None	None
1850	..	..	..	2543		
1851	..	..	..	1791		
Total				7152		

These cases were generally taken in from residences in the county and city of Dublin, but a number of them were strangers from the country parts of Ireland, from Scotland, and from England; sailors, &c.

Dublin, 12th February, 1852.

By order,

(Signed,)

CHARLES MATHEWS, Registrar.

WESTMORELAND LOCK HOSPITAL.

Year.	Number Relieved.	Dublin City.	Not from Dublin.
December 31, 1849	1050	320	730
December 31, 1850	1029	254	775
December 31, 1851	998	281	762
Total.	3072	805	2267

N. B.—No Medical Pupils attend, and there are no Clinical or other Lectures delivered by the Physicians or Surgeons attending this Hospital.

Signed,)

JOHN WILKES, Accountant and Registrar.

Westmoreland Lock Hospital, Feb. 17, 1852.

LYING-IN-HOSPITAL.

Return of the Number of Persons Delivered and Relieved in the Lying-in-Hospital, Dublin, during each of the last Three Years, ending the 31st day of December, 1851:

		Resident Dublin	Country	Total.	Yearly Totals.
1849	Labour patients delivered in the hospital	1917	156	2063	4654
	Patients in ward for female diseases....	66	25	91	
	Extern patients receiving advice and medicine; average annually.....	..	..	2500
1850	Labour patients delivered in the hospital	1848	142	1990	4552
	Patients in ward for female diseases....	55	17	72	
	Extern patients receiving advice and medicine; average annually.....	..	..	2500
1851	Labour patients delivered in the hospital	1937	132	2069	4637
	Patients in ward for female diseases....	50	18	68	
	Extern patients receiving advice and medicine; average annually.....	..	..	2500
Total for Three Years ..				13,843	

(Signed,)

ROBERT SHEKLETON, M.D., Master of the Hospital.
J. G. STRICKLAND, Secretary and Registrar.

Return of the Number of Medical Pupils who attended the Lying-in-Hospital, Dublin, during each of the last Three Years, ending 31st December, 1851, and the Number of Lectures delivered in the Hospital.

PUPILS.

	1849	1850	1851	Total.
Externs	50	51	66	167
Interns	14	17	17	48
Female	12	14	17	43
	<hr/> 76	<hr/> 82	<hr/> 100	<hr/> 258

Fifty-five of the male pupils were from England, America, and other parts of the world.

LECTURES.—There are two full courses of lectures on midwifery in all its branches, and the diseases of women and infants, of six months each, delivered annually in this hospital by the master and his assistants. The certificate of attendance upon these lectures is received as qualification in midwifery by the Royal College of Surgeons of London and Dublin, the Army and Navy Boards, and other licensing bodies. There are no clinical lectures delivered in the institution. A diploma, with the seal of the hospital attached, is granted to each pupil after six months' attendance upon the lectures and hospital practice, and undergoing a strict examination. Female pupils, who act as midwives throughout the country parts of Ireland, and sometimes England, undergo a strict and regular course of education, and after examination receive a certificate of qualification.

ROBERT SHEKLETON, M.D., Master of the Hospital.

Communications have been received from Dr. Nelson, Plattsburg; Dr. Gaucher, Portneuf; Dr. Mewburn, Queenston; Dr. Reed, Leeds; Dr. Duscheneau, St. Julie; Dr. Deschenc, St. Paschal.

Obituary,—At Berthier, on the 28th ultimo, at the age of 60, Dr. J. M. R. Barbier.

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.448
1 Centimètre.	4½ Lines.	0	0	4.488
1 Décimètre.	8 Inches 8 Lines.	0	8	8.880
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Old Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		899
The English Foot.	30 Centimètres.	804		794
The Yard. (3 Feet.)	91 Centimètres.	914		888

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	1 Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	3	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	85.15
Old Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 Centigrammes.			0 Grammes	088
1 Gros.	4 Grammes.			3	82
1 Ounce.	30 Grammes.			30	59
1 Pound.	500 Grammes.			489	50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 39.370788 inches. 3 280899 feet. 1.093683 yard.
Décimètre, 1-10th of a mètre	{ 3.937079 inches.
Centimètre, 1-100th of a mètre	{ 0.393708 inch.
Millimètre, 1000th of a mètre	{ 0.03937 inch.
Measures of Weight.	
Kilogramme, weight of one cubic décimètre of water of the temperature of 89° 12' Fahr.	{ 2.6803 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5488 grains troy. 0.9719 scruples.
Décigramme, 1-10,000th of a kilogramme	{ 0.082 ounce troy. 1.5488 grain troy.
Centigramme, 1-100,006th	{ 0.1548 grain troy.

CANADA

MEDICAL JOURNAL.

VOL. I.

MONTREAL: JULY, 1852.

No. 5.

ORIGINAL COMMUNICATIONS.

ART. XXIV.—*Case of Cerebral Disease accompanied by Anomalous and Fatal Symptoms.* By JAMES SEWELL, M. D., Physician to the Hotel Dieu, Quebec, &c.

THE following case presents many points of pathological interest, and I confess myself much puzzled to explain the symptoms, and therefore send it to the profession without comment.

CASE—A. B., aged 50, of sober habits, complained on Monday, February 3rd, of much pain of head, which she referred principally to the occipital region, and upper and back part of neck. She, however, continued to attend all this day to her household affairs, slept but little that night, and on the morning of the 4th, complaining still of headache, did not rise at her usual hour, but did so at 10 A. M., with the intention of fulfilling her ordinary duties. In about an hour she felt worse, complained of nausea, vomited slightly, and almost immediately became insensible, when the nearest physician (D. J. P. Russell,) was called in, who found her in the following state: insensibility complete, pulse full and slow, beating 45 in the minute; respiration corresponding with the circulation, noisy but not stertorous. Pupils dilated and insensible to light, bowels not moved since previous day, but had passed water freely in the morning. Dr. R. ordered three drops of croton oil, enveloped the head in pounded ice, and returned home for his cupping case. He was absent but for a few minutes, and on coming back, found her much in the same state, but while preparing his instruments, to his surprise, she suddenly became aroused up and remonstrated violently and positively against being cupped, and then requested to see me. This occurred at half-past twelve, and I saw her in consultation with Dr. R. at half-past

one, when I found her with a pulse 80, *very weak and compressible, insensibility perfect*, pupils dilated, capillary circulation very languid, no stertor, but respiration performed with a constant moan; feet and hands cold, bowels not yet acted upon. Croton oil to be repeated, to have the head shaved, sinapism to the legs, and to apply hot bottles to the spine and feet. My impression at this first view of the case was most unfavourable. At half-past three we met again, and found things going from bad to worse. Pulse just perceptible, hands and feet deathly cold and covered with a cold clammy sweat, respiration twelve in the minute, with mucous râle, coma complete, eye fixed, apparently dying, and so we informed the friends, promising that extraordinary recoveries did sometimes take place, but that we could hold out no hope. Being urged by her husband to leave nothing untried which might tend to her recovery, we determined (more with a view to gratify him, than with any well defined hopes of deriving benefit from the remedy) to administer an enema containing about one oz. of turpentine, which was done immediately, and we then sat down to wait the fatal event which we looked for momentarily, the hand being at this time not only icy cold but nearly black, while *no pulse* at the wrist could be felt. The enema was retained, and on examining the wrist in about half an hour, I perceived not only that the skin was not so death-like, but that I could also feel an indistinct thread-like pulsation of the artery; in fact there was an attempt at reaction, excited, no doubt, by the turpentine.

5 P. M. There being at this time a still further improvement both in the skin and pulse, we determined to repeat the enema, deglutition being impossible.

8 P. M. Upon entering the room at this hour, my surprise may be imagined, but cannot be described, at seeing my patient extend her hand to me and to hear her exclaim, "Ah, Dr., I am glad to see you!" Her consciousness is perfect, has no pain in her head, pulse still weak, but quite distinct and regular; breathing natural, bowels moved twice, remembers nothing but her refusal to be cupped. To have some gruel, and to be kept very quiet.

February 5.—Convalescing—to have beef tea; makes no complaint.

February 6.—Much in the same state as yesterday.

February 7.—9 P. M. Complains of nothing but a slight cough, which annoys her.

February 7.—11 P. M. Was called at this hour, and found that an hour previous she had begun to complain of severe headache, which gradually increased. Having requested Dr. Russell's attendance we found her partially insensible, though she could be roused to answer questions; pupils somewhat dilated, pulse very weak. To have pounded

ice to the head and sinapisms to the feet and nape of the neck, with bottles of warm water to spine and epigastrium. To take half an ounce of camphor mixture with thirty drops of nitrous æther every half hour. I remained with her for about an hour and then left, directions to be sent for at any time during the night, should there be any change for the worse, which I suspected would occur. I was accordingly again summoned about 3 A. M., of the 8th, when I found her perfectly insensible, respiration very laboured, bronchial tubes loaded with a thick frothy mucus, which escaped in large quantities from the nose and mouth ; pulse almost imperceptible, pupils dilated and insensible to light, skin *warm and moist*. Bearing in mind the effect of the turpentine in the former attack, four ounces of this oil were at once administered as an enema, and a smaller quantity in about an hour, without, however, producing the slightest reaction ; deglutition being impossible, three ounces of brandy were thrown up the rectum, and she shortly after, in answer to a question, said faintly "yes," left her in this state at half-past 6 and returned again at half-past 8 A. M. ; at this hour I found *reaction quite established, consciousness perfect* ; free from pain of head or elsewhere, but complains of a sinking sensation at the scrobiculus cordis, cough very troublesome, can only lie on the left side, experiences a suffocating sensation when on the right, cooing or dove sound in a slight degree on the right side, to have some gruel or a little chicken broth, and to take decoct : senega with carb : ammon : a blister over the chest.

Continued much in the same state during the 9th, 10th and 11th, with the exception that the debility was gradually increasing, as^t was also the difficulty in the chest, rendering death almost inevitable. During all these three days the intellect remained perfectly clear, and continued so up to 8 o'clock P. M., of the 12th, when she died without a struggle.

Post-mortem examination, 18 hours after death.

Body corpulent and well formed ; on opening the chest, old and firm adhesions were discovered on the left side, substance of both lungs considerably engorged. Bronchial tubes red and congested, heart and its valves quite healthy, about 1 ounce of serum in pericardium. Free margin of the liver somewhat harder than usual, otherwise healthy ; stomach and bowels perfectly normal, as were also the kidneys.

Some blood flowed out upon dividing the scalp, but nothing extraordinary ; external surface of dura mater rather more injected than usual. Arachnoid and Pia Mater membranes perfectly healthy, no fluid at the base. The choroid plexus presented a vesicular appearance, as if *edematous* ; upon puncturing these small vesicles they collapsed, a small

quantity of serum escaped; substance of brain perfectly healthy. Great commissure somewhat injected, about 1 oz. of coloured serum was found in each lateral ventricle; medulla oblongata, and about two inches of the upper portion of the spinal cord, which were removed, were found healthy.

As the *post-mortem* examination had already occupied a considerable time, the spinal column was not further examined.

Quebec, 18th June, 1852.

ART. XXV.—*On Inversion of the Uterus.* By A. VON IFFLAND, M. D., M. R. C. S. L.

THE advantages accruing to the practitioner, or to the student, from bringing before him, in a contracted view, the widely scattered facts belonging to an extensive and advancing science, and which chance, or the labours of individuals, has brought to light, have so often manifested themselves to me, that I cannot but seriously reproach the pertinacity with which several members of the profession—distinguished not only by the extent of their practice, but sometimes also by their learning— withhold from publication those stores of valuable and interesting information, which must unavoidably have been acquired in the course of years of practical observation; for, as has been justly observed, whatever advances have been really made in the knowledge and cure of diseases, have been more the results of observation and experiment (and not unfrequently indeed, of chance itself), than of any process of reasoning on previous or abstract principles. Of the many extraordinary accidents which may fall under the observation and treatment of the practitioner in obstetrics, none, I am persuaded, will be found of so rare a nature as the very distressing and dangerous one of *inversion of the womb*—so rare indeed, that many may pass a long life in the most active and extensive practice, without, perhaps, having had an opportunity of personally witnessing so alarming a case. The following having occurred some months since in the course of my private practice, may be deemed worthy of record in this highly interesting periodical.

On the 23rd of November last, about 9 A. M., I was called to attend a lady from Montreal, aged about 22, then on a visit to her father, a very respectable inhabitant of Beauport. She had miscalculated, by a fortnight at least, the time of her confinement, for I found her in precisely the state which unfailingly characterises the first stage. It was her first pregnancy. She had, it appears, during the three last months, suffered much from lancinating pains in the back and below the umbilicus,

they were not so severe as to confine her to bed. The labour progressed regularly, although slowly, and at about 8 o'clock in the evening, she gave birth to a large, full-grown child, the placenta following shortly after. Nothing very unusual supervened from that time until the 25th, two days after, about noon, when I was hastily sent for. I found the unfortunate patient lying on her back, deadly pale; the pulse quick, weak; the voice tremulous and almost extinct, and the patient in a state threatening a speedy dissolution.

On removing the clothes, I found her literally floating in blood, with the *uterus* of globular form, with a red, rough, and bleeding surface, completely protruding from the *vagina*; the *os uteri* at its superior extremity, forming a circular thickening at the apex. It was evidently that organ turned inside out. At first sight, says Churchill, it may resemble *prolapse of the womb*, but considering the period of its occurrence—the hæmorrhage—the absence of the smooth vaginal covering of the bladder anteriorly, and of the *os uteri* inferiorly, it is very easily distinguished. It would appear, that, immediately preceding the descent and protrusion of the inverted uterus through the vagina, the patient had been sitting on her *pot de chambre*, with the desire of voiding urine; that while on the *pot* she experienced a very violent pain, (uterine contraction), and a dragging sensation from the loins, leading her to expect a second child. The bystanders, the nurse, and other women in attendance, under the impression that she was in labour of another child, removed her to her bed. After visual examination, however, they persuaded themselves that the large tumour protruding, was neither a child nor a monster, but truly a very large *mole*, and after a short consultation they lost no time in attempting to rid the poor patient of the extraneous incumbrance by pulling at the tumour. It is, therefore, not surprising, that, on my arrival, independent of the case itself, I should have found the sufferer in so exhausted and precarious a state.

I lost not a moment in effecting the re-inversion of the uterus by the means recommended by the most experienced writers, but, finding the upper portion of the organ—where it is tightly encircled by the cervix—so strangulated, that, at first, I was apprehensive the reduction would be impeded, and that I should be under the necessity of dividing, with a bistoury, the circular band of the fibres of the cervix uteri. It was, however, after fomenting the part for a short time, safely passed through the vagina, and having followed it thither with my hand, (previously well greased with melted hog's lard), closed and formed into a cone, and mainly pressing upon the fundus for some time, it receded, and suddenly started from the hand, (likened, by a late author, to a bottle of India-rubber when turned inside out) and the organ was restored to its natural position. It may nevertheless be observed, that until the vagina can be

put upon the stretch, no effect whatever will be produced upon the inversion; indeed, it is expressly stated by those practically cognizant with similar cases, that they did not feel the reduction properly commence until the vagina was stretched to its full extent; and, as it is also very judiciously remarked by Dr. Churchill, the hand, while in the cavity of the uterus, should not be withdrawn, but rather expelled by the uterine contraction—this will ensure the patient against the repetition of the accident. We should also assure ourselves, before the removal of the hand, that the restoration has been complete.

It may be remarked, that although the bladder had been emptied (a precaution of the highest importance), I was particularly anxious to prevent any inconvenience, which, from its probable incapacity to void the urine, might follow without the aid of catheterism; but being at the time called to another urgent case, which required all my attendance, I sent, with that view, an intelligent woman of much experience, and for many years in the habit of drawing off the water of female patients, by means of the simple, and easily-introduced, elastic gum catheter. This very reasonable transfer of duty, however, gave offence, and the attendance of another medical gentleman, of long standing and reputation, soon followed, and she perfectly recovered. Having since been consulted by the mother of the patient, I learned that she had not quite recovered her natural strength, but believes that she is again pregnant.

REMARKS.—The above case of *inversion* appears to be one of those which may occur spontaneously, after the labour has been completed in the natural way, and may, as Dr. Radford observes, be attributed to atony of the uterus, or to active contraction of one part, with an atonic condition of another. In the above case no violence or force whatever was employed in the delivery of the placenta; it followed the child at the interval of about four minutes. I have no doubt, however, that violence in extracting the placenta, may produce either of the degrees into which some authors have divided inversions of the womb, viz:—*depression*, *partial*, and *complete* inversion.

The uterus, during pregnancy, is chiefly enlarged towards the *fundus*, so that the broad ligaments are left much below its principal bulk; consequently, from pulling violently at the cord to deliver the *placenta*, the *fundus* may be drawn down through the os uteri.*

* Dr. Hamilton says: "of five instances, where this happened from the ignorance of the practitioner in hurrying the extraction of the *placenta*, one lady only survived the dreadful accident. Her recovery is the most extraordinary, as the womb could not be restored to its natural state, and though replaced within the vagina, it still continues *inverted*."

The eminent and experienced Denman observes:—There is reason to believe that the uterus has been inverted, when, on account of hæmorrhage, or some other urgent symptom, the hand has been introduced within the cavity of the uterus, while in a collapsed or wholly uncontracted state, and the placenta being withdrawn before it was perfectly loosened, the fundus of the uterus has unexpectedly followed, and a complete inversion has been occasioned. Forcibly pulling the funis, for the purpose of detaching the placenta, may, perhaps, under certain circumstances, give rise to the accident, but it is not a frequent cause.

But inversion, says Churchill, may occur quite unconnected with parturition, contrary to the assertion of Astruc, and some of the older writers.

If a tumour form at the upper part of the fundus uteri, it will first distend the uterus mechanically, and then, by its weight, it may descend through the os uteri, dragging the fundus after it, and so produce complete inversion. Such a case the Doctor mentions having himself seen in Jervis Street Hospital, under the care of Mr. Lynch. Another case, of a similar character, is also published by Dr. Browne, in the Dublin Medical Journal.

Adverting to the three degrees in which the inversion may vary, I would recommend a reference to a valuable monograph on this subject, by Dr. Newnham,* (published in London, 1 vol. 8vo; but very scarce). He divides the inversion into—*depression*, *partial* and *complete*. In the first, the fundus of the uterus is depressed within its cavity, but does not form a tumour in the vagina. This stage can only be known by introducing the finger into the uterus; and by ascertaining the state of that organ by pressure upon the abdomen. By the *former process*, the fundus of the womb will be found to have approached the os internum, and by the latter, a corresponding depression will be observed, instead of that regular contraction, which is so familiar to every prudent practitioner. This state is generally accompanied with an effort to bear down, by which it is often converted into *partial* or *even complete* inversion. When the inversion is *partial*, the fundus of the uterus is brought down into the vagina, forming a tumour of considerable size, presenting a semi-spherical form, and closely invested by the os uteri. In this case, the depression of the fundus, observed through the parietes of the abdomen, will be considerably greater than in the former, and the edge of the cavity thus formed will alone be felt. With regard to the last degree, the *complete* inversion, it is fully explained in the case above related, but I shall give it in his own words:—

“In the *complete* inversion, the uterus will be found not only filling

* The author of the Reciprocal Influence of Body and Mind considered.

the vagina, but protruding beyond it, resembling in its form that of the uterus after recent delivery, only that its mouth is turned towards the abdomen. The os uteri may be felt at the superior extremity of the tumour, forming a circular thickening at its apex, and the uterus is wholly wanting in the hypogastric region. This state is usually accompanied with inversion of the vagina."

It sometimes happens that the *placenta* remains attached to the uterus at the time of inversion, and a question of great practical importance has arisen, as to the propriety of removing it before attempting the reduction. Several French and other continental writers, who have devoted their whole professional life to the practice of midwifery, recommend its removal before reduction; but others, also of great eminence and experience in that branch, and principally practitioners in England, Ireland, and Scotland, are decidedly opposed to it. Newnham observes: "it has been recommended by several respectable authorities, to remove first the placenta, in order to diminish the bulk of the inverted fundus, and thus facilitate the reduction. But it is surely impossible that this proceeding can be attended with any beneficial consequences, whilst the irritation of the uterus would necessarily tend to bring on those bearing down efforts, which would present a material obstacle to its reduction, and would increase the hæmorrhage at a period when every ounce of blood is of infinite importance. Besides, returning the placenta while it remains attached to the uterus, and its subsequent *judicious* treatment as a simply retained placenta, will have a good effect in bringing on that regular and natural uterine contraction, which is the hope of the practitioner and the safety of the patient."

Dr. Churchill, however, remarks:—"It may be doubted, I think, whether the removal of the placenta is attended with so much danger; for, in many instances, it has been found impossible to reduce the uterus in consequence of the great addition to its bulk, which the adhesion of the placenta occasions, and in such cases there is no hesitation about the propriety of removing the placenta, nor have I met with any evil effects recorded as the result of so doing."

Another very important question may arise, whether, when the inversion is found to be *irreducible*, we should be satisfied with returning the tumour into the vagina to protect it from injury, and of maintaining it there by means of bandage and compress, or by pressary, as recommended by Dr. Hamilton in *prolapsus uteri*, or by extirpation; cases are not wanting in which the uterus has sloughed off, or has been removed, without being followed by loss of life.* It is, moreover, recorded

* On reference to my medical note book, I find the following extract of a letter from a medical friend, dated as far back as 15th June, 1831:—"On the 8th instant,

that the operation has been successfully performed by several eminent practitioners, both of France and Germany, as well as of Great Britain and Ireland, and the United States. And provided the health of the patient is not too much impaired, or the uterus affected with scirrhus or cancer, the operation would appear to be, if not in my humble opinion, perfectly justifiable, at least, no more compromising the patient's life, than in those numerous cases which necessitate the surgeon's agency.

Some women have been known to live many years under the affection of an inverted uterus, and without experiencing any great pain or suffering in their general health. It is also asserted by the most credible authorities, that in some cases the uterus has returned spontaneously, after the lapse of considerable time, to its natural condition, and the individuals have conceived and borne children. Several very interesting cases, of a similar nature, are related by Dr. Meigs, for many years professor of midwifery, &c., in the Jefferson Medical College of Philadelphia, and whose name carries great weight throughout the great confederation.

Beauport, near Quebec,
7th June, 1852.

A Clinical Lecture on the Diagnosis of Cardiac Disease. By R. P. HOWARD, M.D., L. R. C. S. E., Physician to the Montreal General Hospital and Montreal Dispensary,—Lecturer on Chemistry and Medical Jurisprudence, St. Lawrence School of Medicine, Montreal, &c., &c.

GENTLEMEN,—You have lately had an opportunity of observing some of the difficulties that are frequently encountered at the bedside, in ascertaining the exact pathological conditions existing in affections of the heart, and, at the same time, of witnessing how many of these difficulties may be overcome, and how large an amount of positive and accurate information may be obtained by the application of our present knowledge of Cardiac diagnosis, when assisted and corrected by successive examinations.

I will first read to you the notes of the case, suggestive of the preceding remarks, and explain the manner in which the successive steps of the diagnosis were made, and the indications for treatment, and then,

(June) Dr. Painchaud introduced, for the inspection of the members of the *Quebec Medical Society*, (Quebec, renowned for its antiquity, possessed in those days such a society, but where is it now ?) a woman of the name of —, from whom he had extirpated one half of the uterus. She appeared to the members in a perfect state of health, and says she continues to menstruate as usual."—A. V. L.

after detailing the post-mortem appearances, will point out the particulars in which the diagnosis was incomplete, and conclude with a few observations :—

—Churchill, a tall negro, aged 58, was admitted into the Montreal General Hospital on the 16th March, 1852, suffering from general anasarca and ascites—states that about 8 weeks ago, after sawing wood in a damp cellar, he had a “cold shivering,” which was followed in two or three days, without pain, by a cough, and in a week by “a swelling,” which gradually extended up his legs and body. The cough having become very distressing and his breathing very short, he soon found it impossible to lie on the left side, where, and under the ensiform cartilage, he has a sense of constriction amounting almost to pain. Linseed tea, &c., failed to relieve him, and about a fortnight ago, bullæ formed on both legs and burst.

He denies ever having had rheumatism, but for many years back has been “short-winded” and subject to palpitations, especially while walking up-hill, and has had occasionally to stand still for breath in the ascent. Not subject to epistaxis—accustomed to hard work.

March 17th.—Present State.—General anasarca, except of face, neck and arms; feet, legs, thighs, prepuce and scrotum enormously distended. Two sores on each leg, caused by the bursting of the bullæ above mentioned. Enlargement of the abdomen, with ascitic fluctuation. Frequent, distressing, paroxysmal cough, with frothy serous expectoration. Dyspnœa with occasional orthopnœa; the former insupportable during decubitus on left side. Complains of great oppression or weight in epigastric and left lateral regions and about the heart. External jugulars somewhat distended—do not pulsate; pulse small, weak, irregular and intermittent, cannot be counted, nor its synchronism with the 1st sound proved.

Heart not displaced into epigastrium, but cardiac dulness extends from right margin of sternum towards left side for 4 inches. Impulse diffused over this region, and perceptible under xiphoid cartilage, and near left nipple; it is feeble and felt irregularly. Heart's rhythm irregular; sounds very quick, not distinct; scarcely distinguishable from one another—the first not being of its usual prolonged soft character, but shorter and more abrupt, unaccompanied by any murmur, and most audible midway between left nipple and left edge of sternum, under centre of lower part of sternum, and at nipple when lying on left side. Dulness of lower third of left side of chest all round, slightly changing with position; with absence of vesicular murmur; bronchial respiration, and nasal bronchophony over the same extent. Exaggerated respiration over rest of lungs, with crepitus of œdema towards base of right lung.

Diagnosis.—No disease of Aortic Valves ; possibly disease of Mitral, obstructive rather than regurgitant, or, perhaps, softening or weakness of the Heart. Enlarged heart ; Dilatation of right ventricle, with slight tricuspid regurgitation. Left Hydrothorax and pulmonary Congestion.

•By Infus. Digital. oj. Potassæ Acetat. ʒss. Tr. Scillæ et Spt. Ætheris Nit. aa ʒiv. M. Capt. ʒi. ter in die.

18th.—Sleeps uneasily and talks much during it. Considerable anxiety of aspect. Has not micturated since last night.

9 P. M.—Passed only about ʒii. of urine since visit at noon. The catheter drew off about ʒiiss. of clear urine S. G. 1023, containing no albumen. To have Calomel gr. v. Pulv. Jalap. Comp. gr. xxv., immediately.

19th.—Detect a faint crepitus at end of inspiration at base of left lung posteriorly. Passed about Oss urine this morning, which deposited the lithates in small quantity. Blister to back.

20th.—Says breathing is less difficult. Considerable expectoration of serum, covered with froth—no blood. May have 4 oz. beefsteak and a pint of beef tea.

21st.—Heart sounds more distinct, and audible under the clavicles ; less of sharp clapping character about the first. Strange to say, also, the rythm is perfect, and the pulse is equal and regular—72 in a minute.

22nd.—Slept but little. Sang during the night, and kept the sitting posture most of the time. Says breathing is more difficult to-day than it has been, and the irregularity of the heart's pulse has returned, though not to the same degree as before. Pulse about 90. External jugulars slightly distended. Head and eyelids droop. Bowels very loose. Legs more swelled. Blister over left back below the last.

23rd.—Pulse again regular, 70 ; appetite good.

24th.—Semi-erect posture ; chin resting on sternum. Jugulars less distended. Langour and indisposition to speak. Pulse regular, 78. Tongue clean ; daily liquid stools ; about Oss. urine in the 24 hours ; and say ʒiii rusty coloured serous expectoration in same period. Cardiac dulness as before, its superior limit on level with the nipple. Sounds normal, heard under clavicles and in epigastrium. Impulse felt more sensibly than before. Cup the right dorsal region to 6 ʒ.

25th.—Add gr. vi. Ammoniz Carb. to each dose of the mixture.

26th.—Diuretics do not act. To have a pill night and morning, containing gr. ii. Mass. Pil. Hydrarg and gr. i. Pulv. Scillæ.

27th.—Fully 6 pints of urine passed in last 24 hours !

28th.—About 2 pints of urine since last visit. Has been very languid

since the 24th. Complains of great tenderness of right side, which, on examination, presents the red blush and induration of erysipelas over the entire antero-lateral region. (The patient in the next bed is recovering from erysipelas of the head.) Applied nitrate of silver to limit the cutaneous inflammation, and ordered a poultice to the part.

29th.—About 9 A. M., the house-surgeon learned from himself that he felt much better and had had a good night, but he had not left the ward beyond two or three minutes when Churchill died suddenly and without a struggle.

Let me now, gentlemen, explain the manner of, and stages in, the diagnosis. The first question that arose in my mind, on first examining this case, was, *are the valves diseased, and which?* Finding no murmur with the 1st sound either over the semilunar valves or up the aorta, and no visible pulsation of the arteries, and remembering, that, contrary to the opinion of Louis, Bouillaud and others, it is only in extreme aortic obstruction that the pulse is irregular and intermittent, I decided that the *aortic valves* were sound. But the unequal, small, intermitting pulse was just what would exist in disease of the mitral. Now there was no murmur with the 1st sound at the apex of the heart, and extending thence towards the angle of the left scapula, as there ought to have been, had there been sufficient regurgitation through that valve to account for the condition of the pulse; hence I concluded that there was *no regurgitation* through the *mitral* orifice. But bearing in mind that obstructive disease of that orifice is capable of producing the same pulse, and by retarding the circulation through the lungs, of leading to engorgement of the right heart, retardation of the general circulation and general dropsy, and that mitral obstruction is only very rarely declared by a murmur with the 2nd sound, (most audible at the apex) because the left auricle does not propel the blood with sufficient force to cause a bruit, I concluded there might be *possibly obstructive* disease of the *mitral valve*. This is a point worthy of your attention; I repeat, the mitral orifice may be contracted—obstructed—without an abnormal bruit announcing it; indeed the presence of a bruit, under such circumstances, is the exception, its absence the rule.

But, again, other possible conditions of the heart, besides obstruction at the mitral orifice, were capable of accounting for the symptoms present in this case, thus: effusion into the pericardium; softening of the heart, whether from fatty degeneration, inflammation, blood disease or other cause; weakness of heart, from engorgement of its cavities and poly-pus, all produce many of the signs and symptoms observed in Churchill's case. However, the amount of dulness over the cardiac region scarcely indicated a sufficiently large effusion to so embarrass the heart, as to pro-

duce so small, unequal, intermittent a pulse, so much dyspnoea and pulmonary obstruction ; hence there was little probability that the symptoms were due to hydro-pericardium.

As regards polypus of the heart, the diagnosis is confessedly difficult and seldom certain ; but according to the best observers, it is chiefly based upon the *sudden* supervention of anomalous, confused, and obscure pulsations and sounds of the heart, with the general signs of an extreme obstruction to the circulation through the organ, (such as sudden and excessive aggravation of the dyspnoea, &c.,) without any other obvious cause than polypus to account for these signs and symptoms. Now, in our patient, the symptoms had been coming on for several weeks, were gradually gravescent in their progress, were not of that extreme severity which the existence of polypus presupposes, and were rationally referrible to the consequence of previous cardiac disease. Besides, probability was greatly in favour of its being either mitral obstruction or weakness of the heart, inasmuch as these affections occur more frequently than true polypi ; that is, polypi formed during life. And probability, you will remember, is a very important element in the diagnosis of disease, as well as in the settling of other obscure questions.

Having then excluded extreme aortic obstruction, mitral regurgitation, copious pericardial effusion and polypus, there remained to meet the signs and symptoms, mitral obstruction, softening and weakness of the heart from temporary embarrassment. And here, you may remember, I stated I was at a loss how to decide, and could not confidently say, which condition obtained ; for though mitral obstruction is a not uncommon lesion, and well explains the case, and often exists in the absence of valvular murmur, yet softening and weakness of the heart are also tolerably frequent, harmonize with the general signs present, and further seemed indicated by the sharp-clicking character of the first sound, and the weakness of the impulse. Unable then to say which of these conditions was present, I mentioned my doubt to you at the time, and left it for future examination, during the progress of the case, to clear up the difficulty.

Do you now enquire what led me to diagnose enlargement of the heart, dilatation of the right side with tricuspid regurgitation—I will proceed to explain. The increased dulness was due either to effusion into the pericardium or enlargement of the heart ; to which of these it was not easy at first to say, for such an effusion was a very likely thing in disease of the heart attended with general anasarca, ascites and hydrothorax : and a copious effusion would account for the increased dulness, the irregular, weak but diffused impulse ; the sense of weight in precordia, the dyspnoea and the small, frequent, intermittent pulse. And

a largely dilated heart would be equally compatible with such signs and symptoms on the supposition that its walls were *weak*, or that they were gorged with blood from the obstruction to the pulmonary and general circulations. Both views being thus far tenable, one sign only remained unanalyzed, and this was the sounds of the heart, which, being quite audible, and the first partaking more of a valvular than of a muscular sound, favoured the idea that *dilatation* was the cause of the increased dulness, and not *pericardial effusion*, for then the sounds would in all probability have been more masked. Connecting this view with the following facts—the increased dulness chiefly occupied the lower sternal region, and extended to its right border, the sounds were very audible over the right heart, the general dropsy and enlarged jugular veins pointed to tricuspid regurgitation as established by Dr. Blakiston and corroborated by myself—I ventured to assert, that the heart was *enlarged*, and that there was *dilatation* of the *right* side, with slight tricuspid regurgitation. I said “slight,” because, had it been great, the veins would have been more enlarged, and would most likely have pulsated, at each contraction of the ventricle.

I must not detain you with a long statement of the signs by which the condition of the lungs and pleura was ascertained. Dulness on percussion, changing with position and accompanied with ægophony and indistinct vesicular murmur, point conclusively to effusion into the pleura; and the anasarca, ascites and cardiac disease almost necessarily involve the conclusion, that such an effusion must be of the nature of hydrothorax—passive, not inflammatory—the result of pleuritis—but like the general dropsy, the consequence of obstruction of the circulation.

What was to be expected from treatment in this case? Advanced disease of the heart, with extreme anasarca, ascites and hydrothorax, sloughing of the integuments of the legs, and great debility. Plainly very little. The *prognosis* was decidedly unfavourable.

What was the proper course to be pursued? Why to relieve the embarrassed heart by keeping up its tonicity, and at the same time reducing the amount of fluid it was obliged to propel. Nature, in this respect, had set us an example, by pouring out into the loose areolar tissue and large cavities of the frame the watery portion of the blood, and by exuding into the bronchial tubes a copious serous expectoration. With this object in view, active diuretics were given with the hope that, by their instrumentality, the renal organs might be excited to assist in pumping off the now over abundant serum, a brisk hydrogogue cathartic was administered and blisters applied to the back, while at the same time beef tea and beefsteak were allowed to support his strength. On his admission, and for two days subsequently, he passed a very small quantity of urine, not ex-

ceeding 3ii. on the 18th, and this, when examined, was found of the S. G. 1023, (which is about natural,) and free from albumen. This was a point of importance, for a condition of the kidney declared by the secretion of urine of low S. G., and containing albumen, thence called albuminuria—is a common source of general dropsy, and even, it would seem, of disease of the heart.

Four days after the commencement of the treatment, some important changes, you may remember, were recorded in the physical signs, which threw additional light on the case. The heart's sounds had become more distinct, and more extensively audible, and the first had less of its sharp clapping character, while the rythm was restored and the pulse had regained its regularity. And now you can perceive the value of repeated examinations. The restoration of regularity to the heart's rythm, and to the pulse, was incompatible with much mitral obstruction; softening of the heart to an extent capable of rendering the pulse so weak and intermitting as it was here, could not have been cured in four days: so that the only supposition upon which the progress of the case could be explained was, that the urgent dyspnœa and pulmonary obstruction so embarrassed the heart as to overpower it—to render it temporarily weak. In harmony with this view, we find that on the 20th, the day before the improvement in the pulse, the dyspnœa is stated to have abated, while on the 22nd, coevally with the aggravation of the dyspnœa, was the return of the irregularity of the heart. The diagnosis of enlargement and dilatation previously made, also, was now corroborated by the greater distinctness of the sounds, and the wider space over which they were heard, and at a still later period by the greater force of the impulse.

A second blister was now applied, and with the view of more effectually relieving the gorged heart, 6 ℥ of blood were abstracted by cupping from the right back. Two days later, the diuretics having failed to fulfil their intended use, blue pill and squill were given, and that evening the kidneys began to act vigourously, so that 6 pints of urine were passed in 24 hours. You will find the combination of blue pill with squill and digitalis, a very excellent and tolerably certain diuretic. The diuresis, however, did not continue long; it was reduced two-thirds the next day, perhaps by the revulsive influence of an attack of erysipelas, which unfortunately seized our patient and seemed to hasten his end for he died the following day.

I will now read for you the appearances discovered in the body four hours post mortem.

Head.—The anterior and external jugulars very visibly gorged; much blood escaped on cutting the scalp. Membranes of brain not much injected; some serous effusion under visceral arachnoid; bubbles of air

in several of the cerebral vessels, brain of healthy appearance and consistence.

Thorax.—Serum oozes through the incisions made in the parietes. Left pleura filled with this straw coloured fluid in which albuminous flocculi float. Left lung invisible, lies pressed against spinal column, except the inferior free edge which is attached to the costal pleura at one spot; lung universally healthy. Right pleural cavity contains about a pint of similar fluid; the opposed surfaces are extensively bound together by old adhesions, both laterally and at the base of the lung. Structure of this organ healthy; more carbonaceous deposit than is common in white men.

Both layers of pericardium universally adherent, and so closely as to be with difficulty separable by dissection; the membrane is also much thickened; its exterior is covered with a ridge of very dense fat, in which the areolar tissue is abundant and almost fibrous. Heart dilated and hypertrophied, weighs with bronchial glands, and small portion of trachea 2 lbs., without these say over 1½lb. Measures 4 inches in transverse diameter. Both ventricles closed by rigor mortis. Walls of left ventricle 8 lines thick at apex, 14 at base; firm and red; small white coagulum extends from its interior into that of left auricle. The mitral orifice 4 inches in circumference; its valves close it, are healthy, but present thickening of their fibrous structure. Left auricle's walls thickened and cavity large. Right ventricle's walls also are thickened; measures 5 lines at apex, and 8 lines at base; it has not the usual flaccid appearance of the right heart, and its cavity is occupied by a yellow white coagulum, which extends up the pulmonary artery to the valves, and through the auriculo-ventricular ring into the auricle. The tricuspid orifice measures 5 inches; its valves are healthy and might close the orifice when the ventricle is not much distended. The right auricle's walls are much thickened and measures 6 lines, its cavity is enlarged. The thickening is chiefly due to the pericardium and its lining of lymph; aortic and pulmonary valves healthy; aorta much smaller than usual, forming a strong contrast with the large and powerful heart.

The bronchial glands very large, several of them the size of a plum, extremely hard, and either jet black, or mottled with a pink, firm, cheesy looking substance.

Abdomen contains about 4 pints of straw coloured serum. Liver extends across to spleen, to which it is firmly adherent; the convex surface of both lobes is almost universally attached by old adhesions to the diaphragm; it does not reach below the ribs. The lymphatic glands about the cardiac orifice of the stomach, and leading to the longitudinal fissure, are enlarged and hardened like the bronchial. Gall bladder,

stomach, and intestines normal. Kidneys large, apparently healthy within, but studded externally with numerous little clear cysts, filled with transparent fluid, and varying in size from a pin's point to a cherry.

You see then, Gentlemen, the cadaveric examination confirmed the diagnosis very closely ; it proved the valves to be healthy ; the heart to be generally dilated and hypertrophied ; the right cavities so enlarged as to allow of tricuspid regurgitation whenever distended by the blood which would naturally accumulate therein during severe exercise, or the dyspnœa under which the patient laboured ; no softening or fatty degeneration of its walls ; no effusion into the pericardium, but copious effusion into the left pleura, and moderate effusion into the right.

But it also revealed a condition which was not expected—which had not indeed been thought of, viz : univerral adhesion of the pericardium to the heart.

The diagnosis of adherent pericardium is admitted by most Auscultators as not yet attainable. Even Hope grants that it " cannot be made with absolute certainty,"* and Dr. Blackiston, one of the most recent writers on the subject, knows of no signs by which this condition can be ascertained. The signs which have been attributed to adhering pericardium are, an abrupt tumbling, jogging motion of the heart, sometimes the jogging having a double character ; the heart occupying its natural situation instead of falling downwards by the increased gravity consequent upon its enlarged condition ; the locality and boundaries of its dulness not altered by deep inspiration or position ; prominence of the paries of the chest in the same situation ; retraction of the intercostal spaces and epigastrium during the heart's systole ; and, lastly, the history of previous pericarditis.

Now if these signs were generally present, or when present, always indicated adherent pericardium, the diagnosis would be easy ; but neither Williams nor Blackiston has ever seen in this affection, the jogging motion mentioned by Hope, and it is not unfrequently met with when no adhesion exists ; it was absent in Churchill, as was also the retraction of the intercostal spaces and of the epigastrium. As regards the last sign, Blackiston observed it but once in 7 cases of the disease. The prominence of the cardiac region also, was not noticed in our case, and had it been, it would have been, perhaps, referred to the enlarged heart or to the œdema of the thoracic walls. Nor had we a history of previous pericarditis to direct our thoughts into the proper channel. In fact, the only one of the above signs noted was the non-displacement of an enlarged heart downwards, though, perhaps, had we tried the effect

* Hope on Diseases of the heart : 5th edition, page 183.

of posture upon the organ's situation and impulse, another valuable sign might have been elicited.

Before concluding this lecture a question suggests itself, of some importance, to the full appreciation of the case under consideration. What was the initiative evil—the starting point—of the Cardiac disease in Churchill. To this I would answer, an inflammation of the pericardium, and for the following reasons:—It is a common affection; there were then the results of an old severe inflammation of an adjacent part, (the adhesions between the pleural surfaces and between the diaphragm and liver); and there was no condition of the aorta, valves or lungs which so well accounted for the hypertrophy of the heart. The sequence of the morbid alterations and consequences was probably as follows: pericarditis, effusion of lymph, adhesion of opposed pericardial surfaces, synchronous hypertrophy and dilatation, (the hypertrophy produced by the increased exertion of the heart to discharge its function in spite of the restraint or opposing force of an adherent pericardium; and the dilatation caused by the engorgement of the cardiac cavities consequent upon the difficulty with which the organ expelled its contents)—increase of dilatation and distension of cavities, retarded pulmonary circulation, aggravated by bronchitis, temporary or occasional tricuspid regurgitation, obstruction of the general circulation, anasarca, ascites and hydrothorax.

Our time will not permit the examination of this interesting case any further, though it affords ample materials for another lecture; but before concluding, let me observe, that the feebleness of the impulse of this very large heart was, doubtless, due chiefly to the temporary debility which it suffered from its great engorgement, but partially also, to the shackling influence of the adherent pericardium; and this same engorgement by preventing the quick and firm contraction of the ventricles necessary to produce an audible muscular sound, was, perhaps, the reason why, at our earlier examinations, the first sound of the heart was so short and sharp, instead of being prolonged, as it generally is in hypertrophy, the sound heard in this case being that produced by the closing of the auriculo-ventricular valves only.

April 3, 1852.

Case of Expulsion of Hydatids from the Uterus. By E. W. C. KINGDOM, M. D., Assistant Surgeon Royal Canadian Rifles.

Mrs. S——, æt 40, bilious temperament, consulted me during the month of January last, as to the cause of severe uterine hæmorrhage, to which she had lately been subject. She was under the impression that she

was pregnant, not having menstruated for 6 months, and, as there was also considerable enlargement of the abdomen. On examination, I found a tumor in the hypogastric region, evidently the uterus, nearly as large as it is at the full period of gestation.

She stated that the enlargement had taken place gradually, and that from the morning sickness and other signs of pregnancy, together with her experience of former pregnancies, she felt convinced that she was again in that condition.

Within the last few days she had been subject to alarming "floodings," and she thought the "*child*" was dead, that indeed she had never "quickened."

Stethoscopic examination of the abdomen, could distinguish neither sounds of foetal circulation nor placental soufflet.

The tumor was smooth, there was no sense of weight, cold, or any other sign of a dead child.

On vaginal examination, I found the cervix uteri elongated and flabby, the os patulous and apparently easily dilatable.

No pyrexia, pulse good, and no indications of anæmia from loss of blood.

I sent her home, and told her to let me know when any return of the hæmorrhage came on, recommending rest, in a horizontal posture, &c.

I was sent for about 24 hours after, and found her in strong labour. Pains frequent, violent, and genuine in their character. Considerable hæmorrhage. On examination per vaginam, I felt a spongy mass protruding through the os uteri, a portion of which came away in my hand. This proved to be a mass of hydatids, varying in size from a small pea to a hazel-nut.

The uterine mouth being now well dilated, I gave the patient a good dose of ergot of rye, being anxious to get rid of the remaining hydatids, as the "flooding" still continued profuse, and I had occasion to leave her for a short time, and on my return found that an enormous mass of hydatids had been expelled, the uterus had contracted precisely as it does in natural labour, and the hæmorrhage was arrested.

She made a rapid recovery, without a single bad symptom. I regret I did not weigh the mass of hydatids, but some idea may be formed of their quantity, when I mention, that they more than filled a large wash-hand basin.

REMARKS.—In this case we have the rather rare instance of a woman, the mother of a family, being deceived for such a length of time as to her actual state. It is rather curious too, that the disease should increase in the same manner, and produce all the changes in the uterus, which the presence of a fœtus would. The expulsion of the mass at the same

period as that of a full grown child, I suppose must be attributed to its mechanical distension of the uterine walls.

TREATMENT.—In the present case, the “vis naturæ” did all that was necessary, otherwise, I should have dilated the os uteri, either by the finger or by the introduction of sponge tents.

St. Johns, Canada East.

REVIEW AND BIBLIOGRAPHICAL NOTICE.

An Analytical Compendium of the various Branches of Medical Science, &c. By JOHN NEIL, M. D., and FRANCIS GURNEY SMITH, M. D., Philadelphia, Lea and Blanchard.

THIS is an able, and at the same time a concise treatise, or rather a series of treatises upon Anatomy, Physiology, Surgery, Obstetrics, Materia Medica, Chemistry, and Practice of Medicine, designed for the use of students, but from a careful perusal of some of the chapters, (for we do not profess to have read all) we can confidently recommend it to the practitioner also, who will there find precisely the kind and amount of information he requires on each subject. We strongly recommend this excellent work to our readers.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Surgical Operations for Retention of Urine. By Mr. COCK.

THE author first dwells upon the difficulties which surround the question of what course should be pursued in those cases where an old chronic indurated stricture, recently closed by inflammation and congestion, defies all attempts to pass a catheter, and upon the failure which frequently attends the attempts of the surgeon to relieve such cases by the introduction of sounds, catheters, or bougies. He points out the three modes to which recourse may be had, when the urgency of the symptoms renders some decided interference necessary. First, that of forced catheterism; second, that of opening the urethra in the perineum behind the stricture; and third, that of puncture of the bladder. There is nothing new in either of these measures for relieving retention. They may each possess certain advantages, and the circumstances of the case, and the condition in which we may be placed, may incline us to the

adoption of either the one or the other. They have all their draw-backs ; but on the whole, the author is disposed to believe that the bladder may be reached with the smallest amount of pain, with the least risk of present or future danger, and with the greatest prospect of ulterior good, by puncture through the rectum. The first of these operations the author regards as in reality a mode of puncturing the bladder with a blunt instrument, tunnelling through the perineum under cover of the urethra ; and he believes that the stricture is, in the majority of such cases, neither forced nor crushed, but that a new passage is made outside the urethra, which may either reënter the urethra, or continue its course through the prostate into the bladder. The urgent symptoms may be thus relieved, but the after condition of the patient is not bettered, and it may be rendered even worse. The second operation, of section of the perineum, the author thinks, is, when dexterously and successfully performed, preferable to forcible catheterism. The urine may be allowed to flow by the new channel, until the urethra has had time to recover itself from the injuries it may have sustained by previous manipulation, or from the irritation caused by the continual pressure of the contents of the bladder. But unfortunately the difficulties are often so great, in long-standing disease of the perineum, that the urethra cannot be reached, and great mischief, or even death, may result from the protracted operation. The author describes the proposed modification of this practice, called "cure of stricture by division," of which the principle consists in uniting the upper and lower permeable portions of the urethra by the division of the intermediate impermeable portion, and thus restoring the integrity of the canal. This, however, he thinks, is very rarely carried out ; and that very often death is caused unmistakably from the injuries sustained during the operation. So convinced is the author, by experience and observation, of the difficulty which frequently attends the operation of opening the urethra behind the stricture, where the landmarks which should guide us are obliterated, that he has of late years abandoned the operation of incising the perineum, with a fixed determination to reach the bladder. In those cases where retention and extravasation render it necessary that an outlet should be afforded to the contents of the bladder through the perineum, he limits himself to making a free incision down to the region where the urethra may be supposed to be situated ; and if he cannot then gently introduce a catheter through the wound into the bladder, he does not proceed any farther ; and he has generally found that the urine has speedily found its way through the wound. With regard to the third mode of relieving the bladder, by puncture, the author brings forward cases to show puncture by the rectum safe and simple. Forty cases of operation by the rectum are

related. In all of these, the operation was entirely successful, so far as the relief and the absence of any ill consequences from it were concerned. Seven deaths occurred, from various causes, connected with the previous sufferings of the patients, as diseased kidneys, inflamed bladder, &c. In many cases, the author believes the operation to have materially tended to the restoration of the patient, with a less amount of suffering, and at the same time more speedily and effectually, than could have been effected in any other way.

Mr. SOLLY concurred in opinion with Mr. Cock, that the operation described in the paper was a most valuable one in certain cases. He (Mr. Solly) had heard Mr. Cock describe it years ago, and had himself since performed it several times with success. He considered that this operation was one of the least dangerous that could be performed in cases of retention of urine from stricture. Cases of course occurred in which cutting down upon the urethra was advisable—as when the stricture was of traumatic origin; but where the canal had been much damaged, and where false passages existed, the operation of puncturing the rectum was the most advisable.

Mr. ARNOTT said, that although he was unable to speak in the same unqualified terms of approbation as the author of the paper and Mr. Solly had done, of the operation of puncturing the bladder through the rectum, he was yet able to add his testimony generally in its favour from a personal experience of five cases in which he had resorted to it. He considered that the Society was indebted to Mr. Cock for having brought the present collection of cases before it. He (Mr. Arnott) had only performed this operation in cases of retention of urine supervening on permanent stricture, when other means of relief had failed. But having witnessed incidentally its advantages in facilitating the subsequent treatment of the stricture which had rendered the operation necessary, he was prepared to receive with favour the suggestion to resort to it occasionally in the treatment of that disease. Before, however, he proceeded further in his remarks on this operation, he wished to observe that he thought Mr. Cock had expressed himself with too much severity with regard to the operation of what was called forcing the stricture, and also in regard to the operation of opening the urethra behind the stricture. Both of these proceedings, properly performed in suitable cases, were justifiable and safe. The operation of forcing a stricture was not so severe a proceeding as puncturing the bladder from the rectum, and it had some advantages. Indeed, if he had the misfortune to suffer from retention of urine as a consequence of stricture, he should, if in the hands of a competent surgeon, prefer that the stricture should be attempted to be forced before any opening should be

made in the urethra behind the stricture, or the bladder be punctured through the rectum. What he wished to convey by the operation being "properly performed" was this, that if upon trying to urge the catheter through the stricture, the urethra itself should give way, and be perforated, then that the proceeding should be immediately abandoned. So also with respect to opening the urethra behind the stricture; the best mode was not that usually performed, of cutting from the surface or skin inwards, but by putting the forefinger of the left hand into the anus, so as to depress it; then to introduce the point of a bistoury slightly curved just in front of the anus, and carry it directly inwards so as to strike the membranous part of the urethra; and then holding the instrument outwards, to divide all the superjacent parts. He (Mr. Arnott) had first seen this mode of procedure resorted to by the late Sir Charles Bell, twenty years ago, and had frequently since successfully performed it. If in the operation you missed the urethra, then the operation of puncturing the bladder could be resorted to. With reference to the last operation, which had been employed at the Middlesex Hospital, he had not found it so entirely destitute of disadvantage as had Mr. Cock. Of the five cases in which he had employed it, one patient died, and on examination an abscess was found between the bladder and rectum in the track of the canula. Effusion of urine in this situation was a danger to be dreaded, and he had expected that it would have occurred in some of Mr. Cock's cases; and gratified as he was at hearing the short abstracts of some of them read, he should like to look over the details of the whole before he could satisfy himself that the danger was not real. He could, perhaps, illustrate his views with respect to the different operations, by relating a case in which he had performed all of them in the course of a quarter of an hour on the same patient. In 1844, he was called one morning to an officer of Engineers, who had retention of urine from stricture, and who had had a similar attack some years before. The patient was six feet six inches in height, of large frame, and being partially palsied on one side, was very cumbrous to move. An unsuccessful attempt was made to introduce an instrument into the bladder. Large and repeated doses of laudanum, both by the mouth and rectum, were exhibited at short intervals, and a fresh attempt to pass a catheter was made at the end of some hours, but again without success. A small quantity of water had, however, dribbled away. The patient was now purged, cupped in the perineum, &c. On the following day, the quantity of urine passed was not considerable, yet the relief was such as to lead him (Mr. Arnott) to suppose that the difficulty of the case had been got over. On the following morning early, however, he was again summoned to the patient, and found that he had passed no water since the

preceding afternoon ; the bladder reached half way up to the umbilicus, and he was greatly distressed. The case now admitted of no delay, and he accordingly attempted to force the stricture, but the urethra gave way, and the catheter was at once laid aside. He (Mr. Arnott) explained to the patient's brother, a physician, that he would now endeavour to open the urethra behind the stricture, an operation in which, in these cases, he had generally succeeded ; but in the present instance he did not feel so confident, as there had not been much previous suffering from the stricture, or strain upon the parts, so that the urethra, posterior to the stricture, might not be dilated. If he failed in the attempt, he should then puncture the bladder through the rectum. The attempt to lay open the membranous part of the urethra was made in the way already described, but the urethra was not struck. The bladder was then immediately punctured through the rectum. He (Mr. Arnott) saw the patient twice during the day, when the urine was flowing freely through the canula ; but the next day he was called to him again, and learnt that on the previous afternoon the canula had got displaced ; it was, in fact, out of the bladder ; and that no urine had passed either way since. The bladder was now full, and after a short and unsuccessful attempt to pass a catheter by the urethra, the bladder was again punctured through the rectum ; the canula was kept in sixteen days, when an instrument was got through the urethra into the bladder ; the case did well, and the patient was still living. In one instance it appears that Mr. Cock had failed to reach the bladder in the attempt to puncture it through the rectum, but failure to strike the bladder was not confined to puncture in this situation. Mr. Arnott had twice witnessed in the hands of a very able surgeon, the bladder missed in the attempt to puncture it above the pubes ; in one of these cases, the trocar was reintroduced, and with success ; he might add that both cases recovered.

Mr. COULSON said it was clear from the facts detailed in the paper that the operation of puncturing the bladder by the rectum was easy and safe of performance, but he was not equally convinced that the operation ought to be performed in cases like those mentioned by the author. Puncturing the bladder by the rectum for retention had never been very generally resorted to, because it left the condition on which the retention depended untouched. The late Mr. Liston, in his *Operative Surgery*, says that he never performed the operation in question, and spoke in no measured terms of those who had recourse to it. In some of Mr. Cock's cases the catheter had been introduced not long prior to the operation, and he could not understand why it had not been retained in the bladder, and the operation of puncturing dispensed with. In one or more cases there was extravasation of urine, and he (Mr. C.) thought that the free and deep incisions in the perineum which were

necessary to give relief to the extravasated urine would also have been a sufficient outlet for the urine from the bladder. Again, the author had recommended the operation on the ground that by the withdrawal of the urine from the urethra the stricture would yield ; but it was delusive to expect this to be the result in all cases. He had punctured the bladder by the rectum in an urgent case of retention, dependent on an impermeable stricture of the urethra ; at the end of three or four days the canula slipped out, and retention again occurred. The stricture was in the same position as before the operation, and was then successfully divided by the lancetted stilet. The conclusions which he (Mr. Coulson) arrived at were, that if the smallest instrument, like one of Mr. Syme's staffs, could be introduced through the stricture, it would be better to divide the stricture from without, and thus remove the cause of the complaint. If the stricture was so great that nothing could be introduced through it, then he would prefer passing a grooved staff down to the stricture, making an opening into the perineum beyond the contracted part, passing a strong, straight director with a deep groove in the median line between the urethra and rectum, and passing a straight bistoury some way along the groove, and then cut outwards and upwards towards the staff which had been first introduced. Except, therefore, under the most urgent circumstances, scarcely admitting of the delay requisite for the performance of these operations, he did not think the measure which had been recommended by the author for retention of urine from stricture should be adopted.

Mr. SOLLY observed that Mr. Liston, before his death, altered his opinion as regarded this operation, as he (Mr. Solly) was present when that distinguished surgeon performed it, a few months before he died.

Mr. DE MORGAN said that he had not perused all the cases detailed by Mr. Cock, but they all supported the same views, and showed that the operations did not, as Mr. Coulson had remarked, remove the cause of the retention. In all operations, however, proposed for the relief of stricture, the urine, after a time, passed more or less by the natural passage, similar to what was observed in some cases lately read to the Society of stricture of the colon, in which, some time after an operation had been performed for their relief, the fæces began to pass through the intestine, and take their natural course. The operation, therefore, of puncturing the bladder in cases of stricture, was to some extent a curative agent as regarded the obstruction.

Mr. CURLING had given his best attention to the cases which had been briefly detailed in Mr. Cock's paper. As far as he could judge, he had no objection to make to the puncture of the bladder in the instances cited. In the second case, it did not seem quite clear whether the abscess in the perinæum existed at the time of the operation or had

formed afterwards ; but he did not believe that so excellent and experienced a surgeon as Mr. Cock would venture to puncture the bladder by the rectum in a case of retention of urine with perineal abscess. He would relieve the patients by a free opening at the part. Mr. Curling agreed with the author of the paper, that the operation was more free from risk than was generally supposed ; and in giving it the preference of forced catheterism, he was quite sure that Mr. Cock, in treating of the latter proceeding, did not object to the perforation of a stricture by the skilful use of the catheter, but to the violence inflicted when the instrument was driven out of the passage, the course of which in its progress to the bladder, had been so graphically described in the paper. Still he was surprised to find that Mr. Cock had to puncture the bladder in so many instances at the hospital of which he was surgeon. At the London Hospital, cases of retention of urine were of very common occurrence amongst the dissolute population in the neighbourhood, and no less than 146 cases had been admitted in the past year ; yet this operation was very rarely performed, and he did not believe the bladder had been punctured a dozen times during the past twelve years. He attributed this to the remarkable success attending the general treatment without instruments, by means well known to the fellows of the Society. After the retention had been relieved in this way, and the local irritation had subsided, the cure of the stricture could then be conducted with as much advantage as after the bladder had been punctured by the rectum. In the very few cases in which he had found it necessary to operate, he had punctured the bladder above the pubes, which he believed was as simple and as free from danger as the puncture by the rectum.

Mr. GAY, from the experience he had had of the practice of puncturing the bladder from the rectum, could give it his unqualified support, but in a certain class of cases only—viz., those in which spasm and inflammation suddenly supervened in old stricture, and retention, with all its evils, followed. Amongst the cases detailed in Mr. Cock's interesting paper, he had not been able to detect many of this kind. It was now six years ago that he (Mr. Gay) was called to see an old gentleman labouring under the severest symptoms arising from retention. He had suffered from stricture for years ; and the day before, in consequence of a debauch and exposure to cold, he found himself unable to pass his urine. Many futile attempts had been made to introduce a catheter, by which the urethra had become seriously lacerated. Hot baths, leeches, and opium, had also been employed ; and it was not until the symptoms of constitutional irritation had reached a fearful height that his assistance was called for. Under these circumstances, he thought it unwise to interfere further with the urethra in any part of its course, but to attend

to what was infinitely more urgent—viz., the over-distended state of the bladder. Notwithstanding the bad odour into which the operation of puncturing by the rectum had fallen, he (Mr. G.) determined, though not without much anxiety as to the results, to perform the operation. It was followed by great and immediate relief; and a further employment of palliative remedies to the urethra caused the spasm and inflammation to be so far reduced by the following day, that the old gentleman began again to pass his urine by the natural channel. In a few days more he was convalescent, and nothing was heard whatever of the wound of the bladder made in the operation. Mr. Gay thought the state of the urethra, in such cases, and under such a conjunction of circumstances, to be of all others most unfavourable to catheterism; and from the results of this case, and others which had since fallen under his observation, he did not hesitate to recommend the evacuation of the bladder by these means, whenever that viscus might become so distended as to occasion severe constitutional and local irritation. He had punctured the bladder since in four or five other cases; and so convinced was he of the comparative innocence of the procedure, that he had on one occasion had recourse to it three days following, and this without any bad results. The palliative local treatment of these cases appeared to be more successful after the bladder was emptied, than if employed during its distension, and generally resulted in the patient's being able to void his urine in the course of twenty-four or forty-eight hours. With regard to another class of cases, in which Mr. Cock had been in the habit of puncturing the bladder—viz., those of chronic and permeable stricture—he (Mr. Gay) had had no experience; but, with Mr. Coulson and Mr. Arnott, he could not see its utility. It appeared to him that the result of this practice was to add to an old stricture the undesirable complication of a fistulous passage behind it, which could by no means be of any service towards curing the original disease. He was of opinion that judicious catheterism might in these cases accomplish as much as could be expected. Mr. Gay felt that on so important and interesting a subject, every surgeon who had had any experience was bound to communicate it, for the purpose of arriving at some really practicable conclusion; and it was this consideration that had led him to make these remarks.

Mr. Hodgson deprecated the employment of such violence as had been described in the use of the catheter for the relief of retention of urine in cases of organic stricture, but advocated the employment of that instrument under such circumstance in a cautious manner. By very long continued but moderate pressure, the catheter might often be passed, even through long and obstinate strictures; but great patience and

perseverance were requisite both on the part of the patient and operator, who should also possess the tact and knowledge to enable him to guide, with his fingers in the perineum, the point of the instrument in the track of the urethra. In the course of his experience he had never found it necessary to have recourse to tapping the bladder, either per anum or above the pubes, for the relief of retention of urine. With regard to the former of these operations, he did not regard it as quite of that simple and harmless nature that had been represented. In cases of old stricture the bladder was often very much thickened and contracted in its coats, and incapable of much distension. This state would render the operation difficult, and in some instances unsuccessful. There was also danger of wounding the vesiculæ seminales. He mentioned an instance in which this was believed to have happened, and the inflammation having extended along the vas deferens produced suppuration of the testicles. In another instance the tube slipped out of the opening in the bladder, and could not be replaced; the patient derived only very little relief from the operation. In his opinion, this operation should only be undertaken by experienced and cautious hands.

Mr. PRESCOTT HEWETT would confine himself in his remarks entirely to the question of operating for retention of urine from stricture. He would at once say that the opinion which he had formed was, that few, very few cases of retention of urine from stricture imperatively demanded an operation for their relief, and he was surprised to find that so many cases of this kind had required an operation in one hospital alone during the last few years. Mr. Curling had stated that in the London Hospital, operations for retention of urine had of late years been of very rare occurrence, but he (Mr. P. Hewett) would go a step further, and say confidently that for the eighteen years during which he had been connected with St. George's Hospital, not a single instance had occurred in which it was found necessary to resort to an operation for the relief of retention of urine from stricture: and yet among the large number of cases of this kind yearly admitted into that hospital, were some of a most severe and urgent character. He had necessarily been obliged to operate upon cases of extravasation from rupture of the urethra with retention, which had been brought into the hospital in that condition; but this was altogether a different matter, and one in which the treatment admitted of no doubt. For many years past, at St. George's, long antecedent to his (Mr. Hewett's) going there, cases of retention of urine from stricture had been treated, when catheterism failed, with opium and the warm bath, and for the last eighteen years, to Mr. P. Hewett's knowledge, as already stated, and for some years more, no single instance had arisen where an operation had been required. On

one occasion, and on one alone, had he (Mr. B. Hewett) seen even anything like an approach to an operation. In this case the patient, a man of intemperate habits, had been admitted into St. George's Hospital with retention of urine from stricture, and some false passages which had occurred during the repeated attempts at passing a catheter into the bladder. Another attempt to get an instrument into the bladder was cautiously made by the house-surgeon; but as this failed, a warm bath was ordered, and some laudanum given by the mouth, and under this treatment the patient soon became easier, and then passed a small quantity of water. Shortly afterwards, however, complete retention again recurred; and as no relief appeared to be derived from the treatment, the surgeon of the week was sent for, and another attempt to pass an instrument was again made, but this also proved fruitless. Under these circumstances, as the bladder was getting largely distended, a question arose as to the propriety of tapping this viscus through the rectum; but as the patient, notwithstanding the great distension of the bladder, did not appear to be suffering much, it was ultimately decided that another trial should be made with a full dose of laudanum, two drachms of which were immediately given by the rectum, and within an hour afterwards the patient began once more to pass his water, and gradually emptied the bladder. Let opium be freely given, and from what he had witnessed, Mr. Hewett had no hesitation in stating that an operation in such cases would be very, very rarely indeed required. In conclusion, Mr. Hewett stated that he had never seen any bad effects arise in these cases from the free administration of opium, notwithstanding that he had in some instances given drachm doses every hour for three or four hours consecutively.

Mr. CHARLES HAWKINS thought that there should be further discussion on the important paper before them, for he was not satisfied that it should go forth to the profession that the Society entertained so favourable a view of the operation advocated by Mr. Cock, as the remarks of the preceding speakers would naturally give rise to. He (Mr. Hawkins) was by no means satisfied that cases of stricture generally required the operation to be resorted to, and he must say he had never heard a paper read in that room which had more astonished and surprised him, detailing, as it did, forty cases in which puncture of the bladder had been resorted to, either by the author or his colleagues. Now, he (Mr. Hawkins) had known St. George's Hospital for the last twenty years, and he had never known this operation to be performed there, nor could he learn that it had been resorted to for nearly thirty years. He also knew that surgeons in extensive practice in the west end of London had found it necessary to have recourse to it only about

half a dozen times during the long period of forty years; it was therefore to him most extraordinary that so many cases could be got together from one hospital or from the practice of those connected with it. Indeed, until the remarks of Mr. Curling, he (Mr. Hawkins) imagined that the operation must be peculiar to the other end of London, but it appeared, that though well placed for bad cases of stricture, the London Hospital could produce no such number. He had been surprised to hear of the advantages of this operation in cases of spasm, for these were surely not the cases in which Mr. Cock recommended it, for he appeared to confine its use to those old cases of permanent stricture where from constant attacks of retention of urine and its consequences, the kidneys and bladder became diseased, and the life of the patient placed in jeopardy. In such cases, if an operation were required, then that recommended by Mr. Cock, he (Mr. Hawkins) considered the best. He thought, however, that at the present time, when so many plans of treating stricture were being placed before the public, it was most desirable that the Society should not, without due consideration, give its sanction to any particular plan. He hoped that the older and more experienced fellows of the Society would express their opinions in reference to this operation; with this view he had addressed the Society. It was not that he did not think that, when an operation for the relief of retention of urine became necessary, that recommended by Mr. Cock was perhaps the one attended with least difficulty and followed by fewer bad consequences than any other, but of the results he could say nothing of his own experience. He could call to mind but one case that had come under his own care in which the bladder was punctured for retention of urine. In that instance the operation was successfully performed above the pubis. He had been in the habit of passing an instrument for that patient since, without difficulty. Of course he did not allude to cases in which an operation had been performed for the cure of stricture, where the obstruction was permanent—usually from accident—and performed not for the immediate relief of retention of urine. He had assisted at operations in about half a dozen of such cases, the urethra being cut into through the perineum. He had certainly been surprised to hear of the great amount of bad surgery which Mr. Cock appeared to have met with, for such did not commonly come under his (Mr. Hawkins') observation.

Mr. HOLT remarked that he entirely concurred in the observations made by both Mr. Curling and Mr. Hewett, and expressed his surprise at the large number of cases in which Mr. Cock had found it necessary to have recourse to an operation for the relief of retention of urine. He had been engaged for the last ten years in endeavouring

to procure cases of stricture of the worst possible description, and although a large number of cases of retention of urine in all their varieties had come under his notice, yet he had only recourse to operative procedure in one instance, the operation consisting in opening the membranous portion of the urethra, which formed an elastic tumour behind the stricture, easily detected and easily punctured. If the ordinary palliative treatment were had recourse to, and the first effort failing, no further attempts to pass a catheter were indulged in, in almost every case the urine would in a few hours escape, and in sufficient quantities to obviate all the urgencies of retention, and in a few days (the parts in the intermediate time having become tranquil) a catheter could, in almost every instance, be passed. Were he called upon to perform any operation, he should have no hesitation in preferring, from its simplicity, facility, and the immediate relief it afforded, that recommended by Mr. Cock. He considered the operation of opening the urethra behind the stricture a most hazardous proceeding, and ought only to be had recourse to in cases where the membranous portion of the urethra could be distinctly felt distended by urine. As a proof of this assertion, he might mention a case in which this operation had been attempted by one of the ablest surgeons of the day, a gentleman of vast experience, and who formed one of the heads of the profession. The patient, from continued disease, died the same evening, and the post mortem examination revealed the urethra completely transfixed, the knife having passed between the bladder and symphysis pubis. Respecting the operation of forced catheterism, he was quite assured Mr. Arnott would not sanction that operation in the common acceptation of the term, or, as recommended by some surgeons, that a catheter should be forced into the bladder *vi et armis*, no matter what strictures intervened. Such a course of proceeding could only be attended with hazardous results, and probably the death of the patient. In conclusion, he felt assured that by patience and proper medical treatment the cases in which it might be necessary to perform any operation would be very limited.

Mr. ARNOTT had hoped, in reference to what had fallen from Mr. Holt, that he had sufficiently guarded himself against the supposition that he was in favour of the operation of forcing a catheter into the bladder. He had expressed his opinion, that the attempt to force a stricture was a proper proceeding in certain cases: and he would again state his meaning, which was this—that with a short silver catheter, gentle but steady pressure should be made on the stricture: if it gave, so much the better; but if the urethra was perforated, as the surgeon would at once be aware of by the sensation communicated to the fingers, and by the

bleeding, the catheter should be at once abandoned. He (Mr. Arnott) agreed in the opinions that had been expressed, that the opening of the urethra behind the stricture, in the way in which it was usually performed, by cutting from the skin inwards, was an operation at once difficult, tedious, and uncertain. He had himself experienced these difficulties, and had witnessed them in surgeons of acknowledged eminence. He had also seen the occurrence described by Mr. Holt, of the bladder being opened at the anterior part of its neck. The plan of operating by the curved bistoury was easy of performance and very simple.

Mr. CURLING rose to explain that in the cases in which the bladder had been punctured at the London Hospital, he included cases of retention of urine from enlargement of the prostate gland, which had been injured by instruments, and attended with hæmorrhage into the bladder. He would also mention a remedy for retention from stricture, which was not applicable to persons of debauched habits and broken-down constitutions, but succeeded remarkably well in robust sailors and others. He alluded to the administration of croton oil; as soon as the remedy began to act on the bowels, the patient was able to urinate.

Mr. SOLLY explained that he recommended the operation in cases of permanent stricture, with enlarged prostate, and where great injury had been committed on the urethra. He supposed, from the remarks of the numerous speakers, that more bad cases of stricture were admitted into the hospitals at the east than at the west end of town.

Mr. N. WARD contended, that the operation was admissible in cases of retention with great distention of the bladder, and if it were done simply for the relief of the intense agony and suffering attendant on that complaint, and for the prevention of paralysis of the organ, on account of its simplicity and safety, as shown by the experience of several hospital surgeons, it might be resorted to.

Mr. CHARLES HAWKINS expressed his surprise that Mr. Cock should have met with so many cases of stricture requiring the performance of such an operation, when so many surgeons longer in practice than himself had not done it once.

Mr. WARD had understood that Mr. C. Hawkins was opposed to the operation altogether in the cases alluded to.

Dr. J. A. WILSON remarked, that if he understood the debate correctly, the operation under discussion was sometimes followed by a fistula, and yet it had been described as simple and safe. He would leave that question for surgeons to settle—how could an operation be either simple or safe if it had such a result?

Mr. Cock, in reply, said that the operation in question was recommended by him and others as a means to rescue patients from the effects

of retention when all other measures had failed. Some misapprehension appeared to have arisen from the number of cases he had brought forward. If his paper had been read in full, it would have been found that only twenty-four cases were his own, and that the others had been furnished by his friends. It might be supposed that he had resorted to this operation rashly. He had not done so, however, and had employed it only as a last resort, except in cases of old, impervious, hard strictures. The cases detailed had extended over many years, having been selected from an immense number of cases of retention of urine. He did not think such severe cases of impermeable stricture were met with at the west end of the town. He had endeavoured to show that this operation was only to be had recourse to in the severest cases, when every other palliative measure had failed; indeed, he was of opinion that he had used palliatives too long. He had mentioned three modes of proceeding for the relief of retention of urine; the first, by forcible dilatation; the second, by cutting into the urethra between the stricture and prostate, respecting which he explained its deficiencies and dangers, all of which were great, and frequently led to failure; the third, which he had mentioned, without detracting from the utility of the others, as being more simple, less painful, and more likely to succeed. Fistula had been spoken of as a drawback; but he (Mr. Cock) had never known of an instance of this, when the permeability of the urethra had been restored. One of the virtues of the operation was obtaining this persistency as a sort of safety-valve, until a free passage per urethram had been secured; there was often some difficulty in securing its patency until the canal of the urethra allowed the urine to flow through it. Some of the cases which had been read would illustrate this point. There is not a fistula through which urine distils; but when the bladder is distended, the impulse to evacuate its contents ensues, and then the urine is discharged in a gush by the rectum, instead of by the urethra; and it is a great comfort to the patient, after enduring the suffering from such a condition of the urinary organs, to be able to discharge the contents of the bladder in a gush. There is one other point which he (Mr. Cock) wished to allude to; it seemed to be denied by Mr. Coulson and by Mr. Gay, that relieving this state of those parts places the strictured portion of the urethra in a better condition for a cure to be effected than previously existed. This denial did not accord with the results of his own experience: every operation by means of which the contents of the bladder can be more freely discharged than was previously the case, must sooner or later place the urinary organs in a better condition; the urethra being relieved from the distress and strain upon it, and consequently the induration and other signs of disease gradually lessen and disappear.—*Lancet*.

Laryngotomy Successfully Performed in a Case of Foreign Body in the Larynx. By G. R. MOREHOUSE, M. D., of Philadelphia.

THE little patient, a girl of 10 years, daughter of Mrs. Saunders, on Wednesday morning, February 26th, while laughing and romping with her school-fellows, drew into the larynx a piece of almond shell which she had been holding in her mouth. She was immediately seized with a prolonged paroxysm of coughing, followed by dyspnoea and loss of voice. As soon as aid could be obtained, she was carried home, and Drs. Scoffin and Gegan successively sent for. Under their hands every medical means for disengaging the shell was tried, the œsophagus also was explored, and instruments used to force anything contained therein into the stomach, but every effort seemed in vain. The dyspnoea increased, and the paroxysms of cough became more incessant and more fatiguing. The only remaining mode of relief was the removal of the foreign body through an opening in the windpipe. Accordingly, on Thursday afternoon, I was called to see the child and operate if advisable. At that time the condition of the little sufferer proclaimed the necessity for immediate relief. The face was turgid and of a purplish hue, the eyes protruding, and slightly divergent, the mouth circled with a white zone, and the nostrils distended and pale, forming a countenance expressive of mingled anxiety and despair, the head was inclined forward, and the muscles of forced inspiration strongly contracted, giving to the neck the appearance of great emaciation. Deglutition seemed unimpaired, and she was able, with apparent ease, to gratify her craving thirst. Respiration was with difficulty maintained, and was accompanied with a wheezing sound similar to that heard in asthma, although much more feeble. She complained of no pain except when lateral pressure was made on the larynx. She seemed disinclined to exertion, except at intervals, when her motions were hurried and restless. She seemed fully to appreciate what was passing around her, and spoke to her friends in whispers, repeatedly expressing a wish to die.

Upon auscultation, the respiratory murmur, although barely discernible, was found alike free in either lung; there was no rattling sound to indicate

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the operation obtained, it had become too dark to operate without the aid of artificial light. The extreme condition of the patient, however, rendered it necessary that an opening at least should be made in the windpipe to prevent death from opnoea. The operation of laryngo-tracheotomy, as originally suggested by Boyer, was selected as most appropriate. The patient was placed upon the table, and an attempt made to commence the operation. The violent convulsive struggles of the child, and the forced forward flexion of the head, rendered it impossible to proceed. Ether was therefore administered, sufficient to quiet, without producing its full anæsthetic effect. The superficial tissues were then divided in the middleline by a cut nearly three inches in length, the isthmus of the thyroid body was separated from its attachment, and the plexus of thyroid veins pushed aside with the handle of the scalpel. The windpipe thus being laid bare, and the hæmorrhage slight, as soon as the effect of the ether had passed away, the knife was entered just below the crico-thyroidean artery, dividing, as it was withdrawn, the cricoid cartilage and three upper rings of the trachea. The air rushed from the wound as soon as the knife was removed, blowing before it the blood which flowed from the cut. The patient was raised and placed in a position favourable for the outward flow of the blood.

The relief experienced by the child was immediate and most gratifying, the black blood sunk from the face, the asthmatic breathing ceased, the labouring muscles were at rest, and the countenance, a moment since livid, swollen, and impressive, was now lit up with a smile of gratitude. As soon as oozing had ceased, examination was made for the foreign body, and it was found effusion had taken place in the submucous tissue, almost obliterating the cavity of the trachea at its upper portion. So great was the swelling that it was impossible to introduce an instrument through the rima glottidis, with the hope of extricating the shell; it was therefore proposed to continue the incision upward and divide the thyroid cartilage. On account of the prostrate condition of the child, however, and in hope that the

the extension of the operation unnecessary division of the cartilage until the cal curved tube, flattened laterally, was secured by means of tapes ether was administered, and the patient

appearance of the child was propitious, light, being troubled but little with mucus, but was readily

cleared with a feather. The œdema in the trachea had greatly subsided ; the chords were, however, in apparently as close proximity as ever. It was decided therefore to open the thyroid cartilage, and for this purpose a probe-pointed bistoury was prepared in the following manner : A coating of wax was applied to the sides of the blade, thus converting it into an edgeless instrument, which, having passed between the lips of the *rima*, would glide along without injuring them to their junction with the thyroid cartilage. The bistoury thus prepared was entered at the previous opening, passed between the chords, and with it the cartilage divided. The crico-thyroidean artery was cut, but was readily sealed by the application of a point of caustic. The cartilage was pressed asunder, and the piece of shell removed from the left ventricle by means of a pair of polypus forceps. The tube was permitted to remain in the wound until the swelling of the glottis had subsided, which could readily be judged of by the facility of breathing when the tube was closed. On the second day the tube was removed, and the wound closed with stitches and adhesive plaster. In order that the sides of the wound might be brought in apposition throughout their whole depth, a compress of a double headed roller was employed, the roller (half an inch in diameter) pressing parallel to the cut on either side, and bound to the neck by means of a bandage. The cut has healed kindly and rapidly ; the water dressing was used, and parts of the surface occasionally touched with nitrate of silver. The wound was entirely healed on the 12th of March, fifteen days after the operation, the child's voice is as clear as ever in the morning, but towards evening is somewhat husky, especially if she is disobedient and talks much during the day.—*Phil. Med. Examiner.*

Dislocation of the Clavicle Backwards.

DISLOCATION of the clavicle backwards is comparatively a rare accident, a case or two from time to time being placed on record. One such is published by M. Foucard, (*Revue Medico-Chirurgicale*, Feb., 1851,) which occurred in a woman who, while endeavouring to move a cart by pushing against the wheel, got jammed between the wheel and the wall. She was bled next day, but her symptoms becoming severe, she was subsequently minutely examined. It was then found that in the place of the natural projection of the head of the right clavicle, there was a distinct hollow, and it was evident that a luxation backwards had taken place. The author made many attempts to restore the bone to its place,

but without avail, and therefore contented himself with subduing the inflammation by leeches. The patient recovered and now is only conscious of the accident when she is called upon to make unusually great exertion.

MIDWIFERY.

Complete Inversion of the Uterus, and Successful Reduction under Ether. By JAMES AYER, M.D., Boston.

A FEW weeks since I was called to Mrs. C., No. 2 W. Place, about 2 o'clock in the morning; and before I could leave my house, a second messenger came to urge the greatest haste. On my arrival I found the labour pains strong, and the patient walking around the room, and at times leaning on a chair. Supposing there was no time to lose, I immediately had her placed in a proper position on the bed; and, on examination, found the head presenting naturally, and pressing on the perinæum. With a few strong pains delivery was effected in fifteen minutes. The feet, however, were delivered with difficulty on account of the tension of the umbilical cord. After its birth the child was supported with its abdomen in close contact with the vulva. The cord was tied and divided. In five minutes after the division, uterine contractions came on, and the placenta and membranes were expelled. I am not aware that the slightest force was applied to the cord; as I usually wait a longer period before employing traction. Neither was the hand introduced within the uterus, before the expulsion of the placenta. The cord was not above eight inches in length. The placenta was of medium size. The waters had broken before my arrival. On the completion of delivery, the finger was passed within the uterus, and nothing abnormal was detected. The patient had been troubled with cough for a week or two previous to confinement; and it was noticed as particularly hard and dry at this period. Hæmorrhage after delivery was moderate. The patient was raised from the bed, her clothes changed in part, then placed in bed and a broad swathe applied to the abdomen, over the hips. As I was about taking my leave, the patient complained of "a painful swelling in the privates." On examination I found a hard tumour, larger than a hen's egg, pressing on the perinæum, and feeling like the internal surface of the uterus. Moderate pressure was employed, but the patient made such great complaint, the uterine contractions were so strong, and the resistance of the tumour so firm, I concluded to defer further attempts for the present. Prescribed syr.

morphiæ, to allay pain and procure sleep ; the hips to be elevated, and to have perfect rest.

The same morning, six hours from delivery, I found the swelling increased and protruding beyond the vulva ; it was as large as the fist. On inspection it was found to be of a deep purple colour, covered with mucous membrane, with moderate secretion, and tender to the touch. Taxis, though productive of great pain, was freely employed, but without success—and was repeated at each succeeding visit. In the intervals the patient was kept quiet on the back, with a pillow under the hips, and cloths saturated with iced water applied to the vulva.

Next morning, thirty hours from delivery, the protruding mass was larger than the double fist, dark coloured, strangulated and very tender. I had been able, at every visit, to circumscribe the tumour, feel the neck distinctly, and pass the finger up between the neck and the os tincæ, and thus pass it around the entire circumference. At this visit I could not circumscribe it, on account of its size, but could pass the point of the finger up as far as the cervix—but could press it no further. A hard ring or cord appeared to prevent any further progress. The whole body of the organ had evidently become inverted. The hæmorrhage on delivery had been moderate, but had constantly increased up to this time. The pulse, also, had been constantly increasing in frequency, and had taken on an inflammatory character ; it now numbered 105 per minute. There was a white fur on the tongue, skin dry and hot, and considerable thirst. Some degree of tenderness over the bladder was noticed, and a swollen and tender condition of the labia pudendi. Since delivery, urine had been voided only once, and then pretty freely. An expectorant mixture had been prescribed, also spt. æther nitras. occasionally, and linseed tea as a common drink.

Here there was a train of symptoms presented far from agreeable. Reduction evidently was the only remedy ; and thus far my efforts had proved abortive. Whilst reflecting on the probabilities of the case, and on the character of the obstacle, namely, the contraction of the os tincæ operating as a sphincter on the neck of the uterus—it occurred to me that the difficulty of hernia was similar to this. If, then, I thought the stricture of the abdominal rings can be so far relaxed by the exhibition of ether as to admit of the speedy restoration of the strangulated intestine, why might not the resistance in this case be overcome by the same agency ? If the uterus could be once restored to its position, the application of cold and other adjuvants might retain it *in situ*, still sufficient contractions would come on to keep it permanently in its proper place.

Stepping out for an adviser, I accidentally met near the door Dr.

Clark, of Iowa, temporarily residing in my neighbourhood, and invited him in. He examined the patient, at my request, and fully coincided in the opinion that there was complete inversion. I mentioned the plan of treatment which had suggested itself to me. He admitted its reasonableness, and was kind enough to approve it. We knew of no precedent—but could see no risk in the trial. Indeed, it appeared to be the only method that offered any prospect of success. The case was urgent, and demanded an immediate remedy. Sulph. ether was employed, and the inhalation conducted by Dr. C. very gradually, whilst I grasped the fundus uteri and made gentle pressure. As the system became relaxed the tumour gradually diminished. In thirty minutes the vulva became perfectly flabby, and the tumour soft and compressible. I made firmer pressure, and it was reduced to the size of a hen's egg. The finger could circumscribe it. It remained twenty to thirty minutes of this size—uncertain whether further ground could be gained—and then, to my great joy, disappeared *per saltum*, with the peculiar feel of a receding hernial tumour.

The next indication was to retain the restored organ *in situ*, till the contractions should come on. The uterus was kept up by the point of the finger until a large bag of pounded ice was provided, and placed against the vulva; the hips was elevated and the legs slightly flexed on the thighs. Perfect rest, and syr. morphine to quiet the cough, were ordered.

The patient was under the influence of ether one hour and a quarter, and nothing unpleasant occurred during the process. Three hours after, I found there had been considerable hæmorrhage and cough; no urine had been passed. On examination, a tumour the size of an egg, was found protruding in the upper strait; made no effort to restore it, but continued the ice. At 7 o'clock in the evening the tumour had entirely disappeared; hæmorrhage moderate, with some coagula—no urine passed—pulse 90 and soft, and moderate thirst.

The next morning, twenty-four hours after the operation, pulse 80
 was in the night, discharged a pint
 . The uterus had become firmly
 . The external organs were yet
 ij. to four ounces of iced water was
 1 parts, and the ice bag omitted.
 was passed every twenty-four hours.
 ther accident, steadily and rapidly;
 16 confinement was able to sit up
 take light broth. The babe, a fine
 birth, and is now eight weeks old.

The mother has attended to her usual duties for three weeks past, and says her health is as good as usual. She is of cachectic diathesis, and of lax muscular fibre; she is 23 years old.

The nursing, I would observe, was very imperfect, and increased the hazard of the case.

I have taken the liberty to give the history of the case in detail, as it is the first that has occurred under my observation. So rare is the accident, fortunately, that I have been able to learn but little in regard to it from the experience of practitioners around me. Obstetrical authors either deal with the subject briefly, or pass it over in silence. Denman, Dewees, Burns, Mad. Boivin, Gooch and Ashwell discuss the subject at some length. In Braithwaite, Part XIII., a very interesting case of inversion and successful reduction, arising from a short cord six to eight inches long, is given by Robert Smith, of Aberdeen. Part XIV. of the same Journal contains interesting remarks on the same subject, by T. R. Mitchell, M.D., of spontaneous inversion without hæmorrhage — also a case cited by Dr. Lever.

After the history given of my case, it is unnecessary for me to add that the accident was attributed primarily to the shortness of the umbilical cord; and, secondly, the powerful labour pains and the general laxity of the patient's system were considered as auxiliaries.

June 16, 1852.

On a Stethoscopic Indication of the Separation of the Placenta.

M. CAILLANT (*Thèse Inaugurale Paris, 1852*) informs us, that while engaged assiduously in the practice of obstetrical auscultation, it occurred to him to investigate the relations between the cessation of the placental bruit, and the disruption of the placenta from the uterine surface. While thus occupied, he accidentally made the discovery of a peculiar and characteristic sound, heard immediately after the expulsion of the child, and which he at once attributed to the peeling off of the placenta. In order to ascertain with certainty that this sound was so produced, he has been in the habit of auscultating the uterus during the whole process of labour, and thus made out that the sound in question was only audible immediately before the placenta was felt in the vagina. This sound consists in a repetition of cracklings, of considerable intensity, beginning and subsiding with each uterine contraction. It is said to be very different from the muscular bruit attending the contractions of the organ, as well as from the placental bruit itself, and more nearly resembles the dry crepitus of emphysema than any other known sound.

A case of Hæmorrhage from Inversion of the Uterus, in which the Operation of Transfusion was successfully performed: with remarks on the Employment of Transfusion generally. By JOHN SODEN, Surgeon to the Bath General Hospital.

THE author begins by expressing his belief that the evidence in favour of transfusion is not generally known, and that false notions prevail with respect to its dangerous character. Having had an opportunity three years ago of proving its power, he was induced to examine into the results of all the recorded cases, and has presented a table of thirty-six in which the operation was performed in connexion with the puerperal state. The thirty-sixth case was that in which transfusion was performed by the author. A lady was delivered of her third child rapidly, and the latter pains were so severe that the uterus was violently emptied of its contents, and became inverted, a gush of blood ensued, and the patient fainted. The placenta was detached, and the uterus returned; no further hæmorrhage took place. In half an hour the patient had not rallied, and was insensible, cold, pulseless, and exsanguine in appearance; the breathing was at long intervals, stertorous, and jerking. She could just swallow stimulants by teaspoonfuls at a time, and every other means were used to restore her. After about an hour she became, however, worse; was no longer able to swallow, and the respirations became more rare and stertorous. Transfusion was now had recourse to. The opening was made in the external cephalic vein, and blood drawn from the husband was injected by means of an ordinary syringe of German silver, with a detached stop-cock, previously well warmed. At first the blood would not pass, but returned through the opening in the vein; presently the opposition, from the contact of the coats of the vein, seemed to give way, and the blood, though impelled by a steady and moderate pressure, rushed rapidly up the vein. The effect was instantaneous; a convulsion seized the whole frame, and the muscles of the face were frightfully distorted: not more than an ounce was injected. The convulsion soon passed off, and the patient gradually recovered; it was full an hour before any pulse could be felt at the wrist, and she did not recover consciousness till the following morning. During this time stimulants were continually given; she remained for some time in a weak condition, but has since had another child, and is now doing well. The author then proceeds to analyse the table of cases, which shows that out of thirty-six cases, twenty-nine were recovered from imminent danger, and it does not appear that in the fatal cases death was due to or hastened by the operation. In two, it may be presumed that death had occurred before the operation was performed; in a third, only a small quantity of blood could be procured; in a

fourth, no effect; in the fifth, there were marked but not permanent effects; in the sixth and seventh, the women were too much reduced to be restored. The author considers the influence of the blood injected not to arise from the mere mechanical effect on the heart, but from a direct stimulation of the nervous system, and that the rapidity of the effect is modified greatly by the circumstances of the case, as regards previous duration and cause of exhaustion, and by the character of the means used, as regards quantity, quality, and the mode of operating. With regard to quantity, it appears that a lesser amount was needed in proportion as the exhaustion arose from the suddenness rather than the amount of the bleeding. The author thinks that some cases have been lost from a fear of introducing too much blood, the dangers of which, he thinks, have been over-estimated. The quality of the fluid he regards of great importance, and he alludes to the impropriety of using the blood of the lower animals. The blood need not be drawn from one individual only; that drawn from many may be taken, but it should be the blood of healthy persons. The want of success attending Dr. Simpson's cases of saline injection in uterine hæmorrhage he attributes to the nature of the fluid used, while the same fluid might be serviceable in cholera, the quality as well as quantity of the blood is interfered with. With regard to the mode of performing the operation, the author believes that a simple syringe, with a detached stop-cock, plated or tinned on the inside, and capable of holding about three ounces, is the best instrument. The more complicated instruments constructed to guard against the admission of air, he considers needless, as the danger is an imaginary one. In one case the operation was successfully performed with a common toy syringe. The operation should, however, be performed at the arm or in some distant vein, in preference to the neck, where there might be some risk from the entrance of air. The convulsions which arose in author's own case, he attributes, not to any irritating quality in the blood injected, but to the transition of the patient from a state of coma to that of syncope; the same thing was noticed in one case three times on the exhibition of stimulants only, and before transfusion was performed. The author then proceeds to notice the opinions of writers on the subject of the treatment of uterine hæmorrhage, and concludes by making few remarks on the general application of transfusion, which has been equally beneficial in cases of hæmorrhage from other causes, and in exhaustion from inanition. It has been, too, of temporary service in phthisis in cancer of the stomach. Its use is suggested in the collapse of typhus and in the diarrhoea of children, where exhaustion is threatened.

In reply to a question put to him by the President, Dr. Lee said that

he had never seen transfusion of blood employed in any case of uterine hæmorrhage. Having so often of late intruded on the time and attention of the Society, he said he would forbear at present making any further observations on the subject, and now sit down. The Society having expressed a desire that Dr. Lee should state his views on transfusion as a resource in uterine hæmorrhage, he proceeded to observe that in none of the varieties of flooding could he place much dependence on transfusion, and he did not believe that in the case now related to the Society the recovery of the patient could be referred to the introduction of an ounce of blood into the venous system. In accidental uterine hæmorrhage, if the membranes be early ruptured, and where this fails, delivery is completed speedily by turning, the forceps, or craniotomy, and all the means in our power employed to secure uterine contraction, comparatively few women perish; and he (Dr. Lee,) had seen some recover where the symptoms were of the most alarming character, and recovery appeared absolutely impossible. In such cases, had transfusion been employed, the recovery would have been referred to it, and not to the real cause, the persevering and vigorous use of the ordinary remedies—pressure over the uterus, the external application of cold, and the internal administration of brandy, wine, and ammonia. In the hæmorrhage which takes place after the uterus has been wholly emptied of its contents, the same remedies, if actively employed, are successful in a large proportion of cases. In most of the fatal cases of this description which he (Dr. Lee) had seen, the common practice of introducing the hand into the uterus to excite it to contraction by rubbing the inner surface, had been employed, and he had likewise seen cases where fatal uterine phlebitis could be referred to the same plan of treatment, which is not efficacious in exciting uterine contraction where great exhaustion exists from previous profuse loss of blood. This practice of rubbing the inner surface of the uterus with the closed fist, is not merely inefficacious in the worst case of atony of the uterus, but it actually displaces those coagula from the exposed vessels which form one of the principal means which Nature employs for the permanent suppression of uterine hæmor-

rhage. The uterus, when employed over the hypogastrium, is not so firmly fixed to the uterus, and like a foreign body, is liable to a dangerous extent can never, as the uterus is contracted in the ordinary hæmorrhage from placental presentation, but the mortality is not so great. In my practice since I observed that in the case of inversion of the uterus it is possible to seize the uterus with the fingers, and deliver by turning,

without introducing the whole hand through the os uteri. It is deeply to be regretted that an attempt, founded upon a grave anatomical blunder, should have been made to alter the practice established during the last century and a half in unavoidable uterine hæmorrhage. The blood does not proceed from the placenta, as has been asserted, and it is therefore irrational and absurd to recommend tearing it away, or detaching it from the uterus with an iron instrument, and leaving the child within the cavity after being imprudently deprived of life. Some inexperienced practitioners have actually tried this unscientific mode of proceedings. He (Dr. Lee,) had great faith in the established rules of practice in all the varieties of uterine hæmorrhage.

Large Ovarian Cyst treated successfully by operation. By Mr GABB, of Hastings.

THE following case presents many points of interest. At the time the operation was performed, it was considered impossible the woman could long have survived, if the plan of repeated tapplings had been adopted. The operation performed was a modification of that proposed by Mr. Bainbrigge and Mr. Brown, but the external opening was made lower down than has hitherto been attempted, to facilitate the exit of the discharge, and to prevent the bagging of the cyst below the external aperture :—Mrs. L., aged 32, tall and slight, has been married seven years, has had three children and aborted twice ; has never been strong though enjoying tolerable health ; she suffered occasionally, about ten years ago, from much pain in the left side, over the region of the descending colon, but does not remember if it was worse during the catamenia ; menstruation natural up to her marriage. Had a lingering labour with her first child five years ago, and since then has been more weakly, but had nothing particular to complain of. Was confined again in 1849, and had a good time ; she remarked, however, that she did not regain her natural size ; health much as usual. Her last child was born in January, 1851 ; labour natural ; after which she so rapidly increased in size that it was necessary to tap her in March, and twelve quarts of clear and highly albuminous fluid were removed ; recovered quickly. She again consulted me in October, being much distressed by the reaccumulation of the fluid. Dr. Tyler Smith saw her on the 27th of that month, and it was agreed, if, on a careful examination, all the other internal organs were found to be normal, to perform the operation recorded.

Present State.—Extreme emaciation ; the nipple was apparently the

only portion of the mammæ remaining; thoracic viscera healthy; urine slightly albuminous, probably from the pressure the kidneys were subject to; externally and per vaginam, the tumour (in which fluctuation was peculiarly distinct) occupied the left side. The catamenial discharge (which had just occurred) has been regular since February when she weaned her infant; she has always remarked that after each period she has got more rapidly larger.

On November 3, at eleven A. M., the following operation was performed under the influence of chloroform, and with the assistance of Dr. Tyler Smith, Dr. Stevenson, and Mr. Ranking:—A vertical incision, about three inches long, was made over the lowest portion of the tumour on the left side, a little external to midway between the anterior superior spinous process of the ilium and pubes, and extending nearly as low as Poupart's ligament. The integuments and fascia were cut through and the muscle carefully divided, until the cavity of the peritoneum was opened. The sac (the walls of which were very thin) then came into view, six ligatures were passed through it and the rectus, attaching it closely to that muscle, the fluid was then removed by puncturing the sac with a large trocar, and the operation was concluded by passing a piece of oiled lint into the sac to prevent union and to allow any secretion to escape, and then bringing the edges of the external wound together with sutures, excepting the part left for the plug just mentioned. She bore the operation well. Nine P. M.: very comfortable and cheerful; pulse quiet. Gave an anodyne draught. 4th. Passed a good night; very comfortable; no febrile excitement. 5th. Going on well. 6th. So comfortable that I did not think it necessary to remove the dressing. 7th. Wound healing by first intention; no skin hot; troubled
lly suffers from after
on pressure, but a
the wound. 9th.
of clear but offensive
open by the plug,
he distress from the
banum pill. 10th.
ckness; pulse 120;
ge from the wound.
ckness still trouble-
dominal parietes the
mmense quantity of
erum with flakes of
cretion; felt much

relieved. 12th. Comfortable. 14th. Feels much better; wound discharging freely; fluid of the same character, though less offensive. 16th. Going on well; tenderness gone; about a teacupful and a half of healthy pus comes away in the twenty-four hours. From this date she has progressed satisfactorily, the secretion varying from half to a teacupful in the twenty-four hours. She has lost flesh considerably since the operation. December 31st. Down stairs; is gaining flesh; weighed eighty-five pounds and a half; discharge about two table-spoonfuls daily. February 5th. Has been out for a walk in the garden; weight eighty-nine pounds and a quarter; about a teaspoonful of discharge. March 11th. Sutures not come away; discharge the same; the probe will only pass downwards, backwards, and inwards; the sore is contracted seemingly to a very small size. The catamenia had not appeared since the operation. On examination per vaginam nothing abnormal can be detected. The urine shows no trace of albumen. 22nd. Weighed ninety-one pounds three-quarters. Since this date she has steadily continued to improve, and can now take a good walk.

At the request of Dr. Tyler Smith a microscopical examination of the blood, of the fluid which came away when the sac was first opened, and of the fluid which came away at the close of the examination, was made by Dr. H. Jones. The following is the microscopical report made by Dr. H. Jones:—1. "The serum was deeply red tinged, contained fewer blood globules than healthy blood, and they were also apparently feebly formed and less coloured than natural; there were many white or lymph globules, and some granular films of fibrin. 2. The first drawn fluid contained multitudes of small vesicles, bearing on their walls opaque refracting granules, in number from six to one. I think these were altered blood globules, they were about that size, and had much the appearance that blood globules, when roughly treated, sometimes put on; their membrane was often distinct, enclosing a pale fluid. Along with these there were a very few imperfect granule cells and many tablets of cholesterine; the fluid itself was decidedly coagulated by nitric acid, but did not form a very bulky coagulum. 3. The last-drawn fluid contained a few small flakes of whitish aspect; it was similar to the above, containing altered blood globules. I suppose them to be in abundance, and also cholesterine. The flakes consisted of largish granules opposed together like the bricks in a mosaic pavement; they were perhaps the remains of an altered epithelium. Fat vesicles and cholesterine were mingled with them. All this seems to indicate a low condition of vital power."

April 16, 1852. Upwards of five months have now elapsed since

the operation described above was performed, and the subject of it has steadily improved during that time. She was not weighed until she began to improve, but though a tall woman, her weight was only, when it was first taken, eighty-five pounds and a half. She had in three months increased five pounds and a quarter. The comparison between the operation described and tapping, appears favourable to the former. Between the first tapping in March, 1851, and the time when she would have required tapping, a second time,—viz., in November of the same year, eight months elapsed. Upward of five months have elapsed since the operation, and her disease has received a most decided check. The probability is, that had she been tapped in November, the sac would ere this have refilled. The loss from suppuration through the opening into the ovarium is evidently less than the loss from the flowing of albumen and other elements of the blood into the sac. Under the one the patient steadily proceeded in emaciation ; under the other, she has gained flesh and strength. But the future progress of the case will require to be recorded.

PATHOLOGY AND PRACTICE OF MEDICINE.

On Fibrinous Deposits on the lining membrane of veins. By HENRY LEE, Esq.

SIMPLE inflammation of the veins—that is to say, inflammation commencing in the coats of the veins—is regarded by the author as a very rare disease. The internal lining of veins especially would appear to be as little susceptible of inflammation as any structure in the body. The large number of instances of phlebitis met with in surgical works, and occurring in daily practice, are regarded by the author as depending upon, and being excited by, a vitiated condition of the blood. This opinion is principally supported by the two following facts : first, that in every case of so called inflammation of the veins, the blood will be found to have coagulated in the vessels ; and secondly, that where such coagulation does not take place, no inflammation will be produced. Continental writers of the highest reputation have indeed mentioned the eccentric layers of lymph which are secreted as the result of inflammation in the interior of veins ; and English writers, whose names carry with them the greatest authority, have described the adhesion of the opposed sides of veins by lymph secreted from the capillaries under a state of inflammation. The advocates of this view have particularly referred to an experiment of M. Gendrin, in which he mentions, that by introducing ir-

irritating substances into the arteries and veins, he obtained large deposits of lymph upon their interior. The author, on the contrary, having found that inflammation of the coats of the veins only occurred in cases where the blood had previously coagulated in them, was induced to believe that the deposit found in the veins might be derived directly from the blood. M. Generin's experiment was therefore repeated, precautions being taken to exclude all blood from the vessel; and it was found that under these circumstances no lymph was effused in the vein. The lining membrane of the veins does not contain any blood vessels of its own, nor does it require any, being in direct contact with the blood. It appears reasonable to suppose, that under such circumstances it would not secrete lymph, and the experiments and observation of the author lead him to this conclusion. The lining membrane of a vein, the outer coats of which are inflamed, may undergo various changes, or may be disintegrated, and cast off into the cavity of the vessel. Lymph and pus may then be secreted into the interior of the canal; but this can only occur in the latter stages of the disease. The readiness with which some morbid poisons produce the coagulation of the blood, and the constancy with which such coagulation (indicated by the cord like induration of the vessel) is found to precede the other symptoms of inflammation, lead to the conclusion that a vitiated condition of the blood is the common cause of phlebitis. Under such circumstances, although the irritation produced is caused by the morbid matter detained in the vein, yet the inflammation is at first manifest in the surrounding parts. The cellular tissue becomes distended with serum; the cellular coat of the vein then becomes thickened, red, and inflamed; and finally, the changes which have been noticed extend to the lining membrane. The effects of inflammation thus are shown to extend *to* and not *from*, the internal surface of veins. M. Cruveilhier, indeed, regards the coagulation of blood in a vessel as the effect of inflammation previously existing. But the author has satisfied himself, that if blood be prevented from stagnating in a vein, no change will there be produced in its lining membrane.—The inflammation is not therefore propagated by continuity of surface, as has been generally supposed, but by the stagnation in different parts of vitiated blood. Coagulation of the blood would therefore appear to be the cause, and not supported by the effect, of inflammation of veins. This view is further supported by the fact, that simple adhesive inflammation of a vein will not produce coagulation of its contents. A preparation was exhibited, showing the effects of a ligature upon a vein twenty-four hours before death. No coagulation of the blood, nor deposit of fibrin on the lining membrane, had in this case taken place. The coats

of the vein were thrown into folds, and a white band marked the situation of the ligature ; but the projecting folds of the lining membrane presented their natural smooth, polished, and lubricated appearance. Healthy venous blood will remain fluid for days, when confined in a vein by a ligature. In this respect there is a contrast between a vein and an artery. In the latter case, the internal coats are divided, and the blood, coming in contact with the divided edges, immediately coagulates. In the vein, on the contrary, the lining membrane is not divided, and therefore the blood remains in contact only with the natural lining of the vessel. Cases in which a small quantity of pus has been introduced into a vein, afford the strongest contrast to those in which the coats have been mechanically irritated. In the latter case, no coagulum will form, or one only sufficient to unite any lesion there may be of the lining membrane. In the former, on the contrary, extensive fibrinous plugs will occupy the vessels. These will sometimes occupy the whole diameter of the vein, and become firmly attached to its sides ; at other times, the outer layers only will become firmly coagulated, and the central ones will remain in a semi-fluid condition. It will sometimes happen that the central portions will be removed, leaving the outer layers attached to the walls of the vessel. The circulation may then be continued through an adventitious cylinder of fibrin. Cases occasionally occur, in which a delicate velvety layer only is deposited on the lining membrane, which remains unaltered in appearance in other parts. The coagula which form in veins will, under such circumstances, lose, in different situations, much of their colouring matter ; and it will be observed that the lining membrane of the vein is coloured (from imbibition) in exact proportion to the amount of colouring matter contained in the different parts of coagula. It will occasionally happen that portions of the decolourized fibrin will become organized and intimately connected with the sides of the veins, as illustrated in a preparation exhibited to the Society. Such layers of fibrin appear constantly to have been mistaken for lymph, the product of inflammation. The extreme readiness with which the blood coagulates from the contact of purulent matter, affords a most important provision for the security of the general system. It appears to depend upon a faculty with which the blood is endowed for its self-preservation. This faculty, although hitherto unacknowledged by physiologists, doubtless exists, and is comparable to the preservative sensibility with which every other part of a living being is endowed. When purulent fluid is introduced into a vein, if the coagula are firmly formed, a local inflammation will alone ensue ; but if the morbid matter extends along the vessel, a high degree of constitutional irritation will follow, and the symptoms will occasionally bear a striking

resemblance to those of typhus fever. In cases as they present themselves in practice, these two sets of symptoms are constantly present at the same time, but they may be produced separately by a very simple experiment : if, for instance, purulent fluid be introduced into a vein, and allowed to remain undisturbed, a local inflammation only will be set up, which will terminate in the formation of an abscess around the vein. The contents of the vein will then become softened, and expelled externally, together with the contents of the abscess. But if the morbid matter be forced forward, in the course of the circulation, no local inflammation will occur, but the symptoms will indicate either the presence of secondary inflammation in some internal part, or of a general contamination of the blood. If the view taken of the origin of inflammation of the veins be correct, it will be evident that any treatment, to be effectual, must have reference to the first periods of the disease ; and that those remedies will most effectually guard the system against the contamination (so much dreaded in this class of cases) which will favour the sequestration of vitiated blood, and tend to localize the disease. The remedies which have been employed to subdue the local inflammation, appear but too often to have done so at the expense of the general system ; for although the local symptoms have become less prominent, fatal mischief has appeared in other parts. In severe cases, those remedies only can be safely employed which tend to preserve the power of blood, and especially those which increase its coagulating power, so as to enable it to separate that portion which, as become infected from the general circulation. Bark and opium, together with a nutritious diet, are the means which appear to favour these actions, upon the due performance of which the safety of the patient depends ; while bleeding and calomel, however useful they might be in a case of simple inflammation of the coats of a vein, appear inadmissible when the disease, as generally happens, originates in its contents.—*Lancet.*

On the Pathology of Lepra and other Scaly Diseases of the Skin. By
R. B. TODD, M. D.

THE views of the author on the pathology of the squamous diseases are thus expressed :—In discussing this subject, the problem we have to solve is this—What can give rise to these remarkable patches on the skin ? why do they assume their peculiar form and other characters ? and why do they prefer particular situations of the body ? Now we gain an important clue to the decision of this question by our knowledge of the clinical history of syphilitic lepra. That knowledge amounts to this : by the con-

tact of a certain diseased secretion a primary sore is generated ; this is followed by more or less of febrile disturbance, sore throat, articular and periosteal affections, and a peculiar eruption of the skin. It may be taken as quite certain that the cause of all these morbid phenomena is to be found in the introduction into the system of a particular poison. That poison need not be introduced into the system through a mucous membrane ; if it be brought in contact with an open surface on the skin, this is quite sufficient to procure its introduction into the system. In this way medical men sometimes become infected, as in a case which lately came before me :—A highly respectable practitioner attended in her labour a woman in whom it never occurred to him to suspect any syphilitic disease. It so happened that at the time he had an abraded surface on one of his fingers. An obstinate ulcer formed here, and secondary symptoms ensued, extending even to disease of the bones. He was at first quite at a loss to explain the cause of his symptoms, when the woman whom he attended applied to him to be cured of secondary symptoms, having an eruption exactly similar to his own ; he at once saw the source of his affection. It is through the blood that such a poison must be introduced ; there is no other channel through which it can be so conveyed through the system and to such various parts. We learn, then, that a particular poison generated in the body of another may, by its introduction into the blood, create an eruption on the skin which presents characters very much resembling those of common lepra ; and the person in whom the poison is first generated may poison several others, giving rise to the same morbid phenomena in each. Thus a particular modification of the syphilitic poison may produce, by its introduction into the blood, a leprous eruption on the skin. So, also, other poisonous matters will cause cutaneous eruptions ; iodide of potassium will cause an eruption of urticaria or of herpes, or even an eruption of somewhat of the scaly character ; mercury will cause a particular form of eczema. The poison of the exanthemata generates each its peculiar form of eruption ; and the typhoid poison also occasions a very characteristic rash on the skin. Surely, then, nothing can be more reasonable than to assume that the eruption of lepra vulgaris, so similar to the syphilitic form and affecting similar parts, is due to an analogous cause—namely, to the presence in the blood of a poisonous agent. But the questions arise, how and where is this generated ? can it be isolated ? can it be communicated from one to another ? To the first question we may answer, that it is generated in the primary and multiplied in the secondary assimilating process. But as to what gives rise to its generation we can form no definite idea : why it should be generated in one who is fed well and had plenty of work ; and why it should also be generated in another who wanted work, and fared wretchedly, are not

to be so easily explained. This, however, must not be forgotten as bearing upon these questions,—that an excess of food, or supply of a kind of food which is not readily digested by the stomach of the patient in question, may derange the assimilating processes just as much as an insufficient supply of poor food. To the second question we must answer, that the poison of lepra cannot be isolated, no more than we can isolate the syphilitic poison. But in reply to the third question, it may be affirmed that, although the lepra vulgaris is not communicable from one to another, as syphilis is, yet in another sense, it may be propagated from one to another ; I mean that, while it is not contagious, it may be propagated by hereditary descent. And this latter fact, which I suppose the clinical history of lepra establishes to the satisfaction of even the most scrupulous, is favourable to the view of its pathology which I am endeavouring to advocate. For most—if not all—diseases which seem to arise from a *materies morbi* in the blood, are apt to be propagated by hereditary descent. Another feature of these scaly diseases which favours this humoral view of their pathology in the disposition which the eruptions manifest to affect the skin symmetrically. Many diseases referrible to the *materies morbi* exhibit this tendency to symmetry ; as has been shown by Dr. W. Budd, in a most valuable paper in the Medico-Chirurgical Transactions, in which he discusses with great ability the pathology of lepra and psoriasis. To conclude, then, this part of my subject, which time forbids me to treat of at greater length, I would sum up thus : that as the syphilitic lepra is due to the introduction into the blood of a poison generated in the body of another as the result of impure and promiscuous sexual intercourse, so the lepra vulgaris is produced by a poison generated in the body of the patient—an effect of some disturbance of the primary and secondary assimilating processes ; or of which the germs, as it were, were transmitted from either parent, and were multiplied in the secondary assimilating processes of the patient.—*Med. Gaz.*

OPHTHALMIC AND AURAL SURGERY.

Dislocation of the Lens, preceded by spontaneous giving way of its Suspensory Ligament ; Extraction. Under the care of Mr. Dixon.

DISLOCATION of the crystalline lens is an accident which must be familiar to those who are in the habit of seeing large number of patients in ophthalmic hospitals ; but the following cases present certain points sufficiently interesting to allow of their being brought under the notice of

practitioners whose opportunities for observing eye diseases are more limited.

John L——, aged fifty-three, applied at the hospital October 30th, 1851. Three weeks previously, he was chopping a piece of wood, when a fragment, the size of the little finger, flew off, and struck him on the left eye, the sight of which immediately became almost lost. He felt no particular uneasiness at the time, but, within a few days, considerable pain came on, and increased so much, that, for several nights before seeking relief, he had been unable to sleep.

On looking at the eye, Mr. Dixon found the lens opaque and brownish, lying at the bottom of the anterior chamber, and no change as yet appeared to have taken place in the texture of the iris. The upper part of the pupil was not hidden by the lens, and, as the cornea was quite transparent, the patient saw large objects placed a little above the level of the eye. The conjunctiva and sclerotic were much injected, and there was a considerable vascular zone around the edge of the cornea.

In the right eye the iris was slightly tremulous, and on examining more closely, Mr. Dixon found the lens opaque, and attached at only its inner margin to the suspensory ligament, on which, as on a hinge, and with its outer edge directed backwards, the lens was swaying to and fro, with every lateral movement of the globe, leaving the outer part of the pupil unobstructed.

The patient declared the sight of this eye to be quite as good as ever, but it proved (as might have been expected) that he could not read without a convex glass.

No doubt a similar partial detachment of the lens from its suspensory ligament had, for some time, been going on in the left eye, and the effect of the blow had been to break the slight attachment which still remained, and, at the same time, propel the lens through the pupil into the anterior chamber.

The only treatment likely to relieve the patient from the pain he was suffering, was to extract at once the dislocated lens, before the cornea and iris; which as yet appeared perfectly healthy, should undergo inflammatory changes. The patient, however, could not make up his mind to any operation until the following day, by which time another night, passed in sleeplessness and pain, had made him ready to submit.

On Nov. 1st, Mr. Dixon having made a downward section in the cornea, the lens followed the knife, together with a very small quantity of vitreous humour: the eyes were closed with a roller, as after an ordinary operation for extraction, and within half an hour the patient was fast asleep.

The patient remained in bed for six days, and took good nourishment. After this time the eye was examined. The section was united sufficiently to retain the aqueous humour, but there was a slight prolapse of the iris; the patient had good perception of large objects.

He continued to do well: the prolapsed iris gradually smoothed down; and seven weeks after the removal of the lens, the union of the lower margin of the pupil with the corneal wound, was the only noticeable consequence of the operation. The sight of the eye was good for large objects, but he could not see to read with it.

The result of this case is more satisfactory than could have been foreseen. The lens, lying in the anterior chamber, could be regarded merely as a foreign body, which was to be removed for the purpose of relieving the patient from the constant pain he was suffering, and also of preventing the destructive inflammation of the eye, which otherwise must have inevitably ensued. The partially-detached condition of the lens in the right eye rendered it additionally important to secure, if possible, some sight in the left, since, in the event of the suspensory ligament of the right lens giving way totally (as will probably one day be the case), the lens would either fall down to the bottom of the posterior chamber, where it might set up chronic disease of the retina, or, in the event of a blow on the eyeball, might be dislocated into the anterior chamber, in the same way as the left lens had been.

Mr. Dixon has favoured us with another very interesting case of dislocated lens, recorded in his case-book. We transcribe it verbatim, with Mr. Dixon's introductory remarks:—

“The partial or complete detachment of the lens from its suspensory ligament seems to be the result of a slow process of softening, accompanied by a corresponding change in the adjacent, anterior portion of the vitreous body, both of which changes may go on without any symptoms directing the patient's attention to the part. Several such cases have come under my notice at the Ophthalmic Hospital, and others must have been observed at similar institutions. Commonly, such partially detached lenses are found opaque; they probably all eventually become so; but I witnessed a remarkable instance of an extensively detached lens retaining its transparency in a young man of twenty-six, whose case is reported in the Appendix to Mr. Bowman's Lectures on the Anatomy of the Eye,' (p. 134, R.)

“The reason why, in some instances, the falling down of a lens is not followed by impaired function of the retina, while in others amaurosis gradually ensues, may perhaps depend on the extent to which the dissolution of the vitreous body proceeds. If only a small portion of this body becomes diffuent, the lens may sway to and fro in this perfectly

fluid portion, while the rest of the vitreous body, retaining its natural consistence, may buoy up the lens sufficiently to prevent it touching the retina. If, on the other hand, the whole of the vitreous body be changed as to differ but little in density from water, the lens will sink as it would in common water, and so come into actual contact with the retina, setting up in that same structure the kind of slow change which so commonly ensues within a year or two after those operations of depression, in which the entire lens, in its unbroken capsule, is thrust down to the bottom of the posterior chamber.

The following case illustrates most of the foregoing remarks:—

“Elizabeth G——, aged sixty-three, had had cataract in the left eye for nearly forty years, the right eye remaining in all respects healthy. In the beginning of January, 1848, she found the sight of the left eye suddenly restored, the lens having become dislodged and fallen down into the posterior chamber. This occurred without any blow or violence to the eye. She applied at the London Ophthalmic Hospital on the 4th of May; the lens had then sunk below the level of the pupil, but came into view whenever the eye was briskly moved, being slightly attached by its lower margin to the suspensory ligament. She complained of a cloud passing to and fro before her, which quite prevented her from working. There was also frequent pain in the eye, but no redness. Whenever the lens sank out of the axis of vision she saw well, and with a convex glass almost as well as with the sound eye.

“By May 5th the lens had become completely detached from the suspensory ligament, and might be seen rolling over and over, as the globe was briskly moved. The pain had increased. Atropine was applied, and the patient ordered to lie for several hours on her face, in hopes the lens might pass into the anterior chamber; but this plan failed.

“I explained to the woman that, if left to itself, the lens would continue to annoy her; that she might be subject for years to pain in the eye, and that, in all probability, total blindness would eventually ensue; that, at the same time, any attempt to extract the lens from the posterior chamber might cost her the sight of the eye, but that, if successful, it would secure her against future pain and inflammation. She readily agreed to an operation on these conditions, as the constant oscillations of the opaque lens altogether incapacitated her from gaining a livelihood.

“June 10th.—The patient being seated, I made an upward section of the cornea; an escape of perfectly fluid, vitreous humour took place as the knife was withdrawn. I quickly passed a fine, sharp hook through the pupil into the posterior chamber, and, getting a glimpse of the lens, caught it by a lucky plunge, and withdrew it through the cor-

neal wound. As it was being withdrawn, the capsule burst, and a creamy fluid escaped; a flattened amber nucleus, about a line and a half in diameter, hung in the section, and was lifted out with the cuvette. The corneal flap having been adjusted, the common bandages were applied, and the patient sent to bed.

“Examined with the microscope, the disk-shaped nucleus presented the ordinary fibrous appearance of lens. It was enveloped by the collapsed capsule, which was transparent, or nearly so, among the folds of which were entangled some oil-globules, granular matter, and broken fragments of lens-fibres.

“14th.—The eye being inspected, the cornea was found clear, and the section united. The pupil was very large, and its margin had dropped backwards, as always happens after a large escape of vitreous humour. The patient had scarcely any perception of light, and this may have arisen from rupture of some vessels of the choroid or retina, consequent upon the sudden escape of so large a portion of the contents of the globe. The patient remained quite free from pain, and left the hospital on the 8th of July, with the eye in the following state:—The cornea clear; the pupil large and immovable; the sclerotic and conjunctiva free from unnatural vascularity; vision limited to mere perception of light. The woman was, however, quite satisfied at having been freed from pain, and restored to the free use of her right eye at the expense of the other, which, as I have stated, had been useless during the greater part of her life.”

Canada Medical Journal.

MONTREAL: JULY, 1852.

MEDICAL CONVENTION TO BE HELD AT TORONTO.

It will be perceived from the letter of Dr. Widmer, published in another part of this Journal, that a General Meeting of the Profession is to be held in Toronto, and we hope that some plan will be decided upon, to place the Profession on a footing of greater respectability. In Lower Canada we had to contend, in some parts, with uneducated and unlicensed practitioners, but the worst of them were superior to the horde of root doctors, steamers, and quacks, that are flocking into every village in Upper Canada, and dividing with the regularly qualified physician, the scanty subsistence the practice of the neighbourhood is capable of affording. These impostors ingratiate themselves into the good opinions of the farmers and country shop-keepers, and descend to familiarities with the lower classes, to which the educated gentleman cannot stoop, and soon the latter finds, that his ignorant and low competitor is preferred to himself, or at least, divides, pretty equally, public confidence. These fellows have hitherto been allowed to go on unmolested, and have been fostered and encouraged in their proceedings, even by those, who should be the protectors of the lawful practitioner, and who, from the position they have been elevated to by the suffrages of the people, should have taken advantage of that position to protect them from fraud and deception. But no! the quacks are numerous, and exercise a baneful influence at all elections; the well educated practitioner must be sacrificed to elevate the village attorney to a place in Parliament, and he whose reputation has never extended beyond the walls of a small country court, and whose attainments are barely sufficient to place him in the respectable company of the Dodsons and Foggs of his neighbourhood, now discourseth learnedly upon medical science, and can adduce the persecution of Harvey, and the old story of Galileo, as apt illustrations of the intollerant spirit of the medical profession, and of philosophers generally; and with a pointedness, more striking from its novelty, endeavours to class under the same form of persecution and

opposition to the advance of science, and the diffusion of real knowledge, the well-meant and loudly-called-for interference of the government, to prevent ignorant impostors from tampering with human life. That the public are not fit to judge in such a difficult matter, is quite evident from the fact, that in the more simple one, of electing a representative, they have actually chosen some of those advocates of quackery, and invested them with enough uncontrolled power to be injurious. We know full well, that as soon as any measure is laid before Parliament, our brethren in Upper Canada will meet with strenuous opposition, and will have a hard battle to fight, and we trust that the respectable practitioner, who calls the meeting, will not limit his exertions to that one act, but carry out his plans, in that house, in which his high attainments as a member of a learned profession, and his standing in society so justly entitled him to sit, and that there, where he will be listened to with attention and respect, he will claim for his profession, the protection granted to all other professions in this country, and to our own in this part of the Province.

But, are there no abuses to correct except those arising from the spread of quackery? Is that the only object which should occupy the attention of the profession at the approaching meeting? There are many others, and amongst them—medical education. We have now three Universities of British character, and no doubt, an effort will soon be made to establish a French one. These three Universities have the power of granting Medical Degrees, and we have also a Board of Medical Examiners in Upper Canada, and a College of Physicians and Surgeon in Lower Canada, who also grant licenses to practise. It is true that the law recognises these two latter as alone capable of granting licenses, but in point of fact, the Universities give the license, for their Degrees, being put on the same level with those from the Mother Country, exempt their holders from a second examination before the College or the Board.

These Colonial Degrees do more, they carry greater protection than degrees from Oxford, Cambridge, Dublin, Edinburgh, Glasgow or London, for the latter Universities give Degrees in *Medicine* only, and the candidate presenting one of them, is examined in Surgery and Midwifery. They afford greater protection than the Colleges of Surgeons of London, Dublin, Edinburgh or Glasgow, for these grant diplomas in *Surgery* only, and practitioners of several years' standing, have to pass an examination here in Medicine and Midwifery before getting permission to practise in this Province. The Degrees given by these Colonial Universities actually entitle their holders to greater privileges than can be conferred by any one University or College in Great Britain or Ireland. We will not

stop here to inquire if the attainments of the Students, and the line of study they have followed, entitle them to exemption from further examination, because we can with confidence assert that, the graduate of M'Gill College can bear comparison with the graduate of any University we are acquainted with, and has as little to fear from a second examination as he of Oxford, Dublin or Edinburgh, and much less to apprehend than licentiates of other institutions we could name. We speak of M'Gill College students from personal experience of the intelligence, industry, zeal and gentlemanly deportment that have ever distinguished them, as well as from our knowledge of the estimation in which they are every where held by the communities amongst whom they practise, and we dare say, that in all these qualities they are equalled, but we are sure they are not surpassed, by the graduates of Toronto. It is therefore, because we are satisfied they have nothing to fear from a second examination, that we recommended that all graduates of Colleges and Universities in this Province, as well as those presenting degrees and diplomas from British Universities and Colleges, be obliged to pass an examination before the Licensing Boards of this Province, then, and then only, will practitioners be considered as possessing equal qualifications; and as we foresee, from the rivalry of the schools and universities already so numerous in this country, that no uniform curriculum of study and standard of examination will be maintained, but every method will be adopted to shorten the former, and render the latter more lenient, for the purpose of swelling the class list, we can devise no other check to these abuses, than the establishment of a general licensing body, where candidates from all quarters will be examined, and impartiality displayed, and inasmuch as we believe our own graduates to be as capable of practising, as those from Europe, we insist, that if the former be obliged to submit to the ordeal, that the latter be also subjected to it. Of course, discretionary power ought to be vested in the authorities of this Board to dispense with examination whenever a practitioner of standing and acquirements comes to settle amongst us, who brings testimonials of his qualifications, and affords ample proof that he has practised with benefit to the public. The young surgeon or physician from Europe must not, however, expect greater favour from the Boards, than our own pupils and graduates. But as these views may appear novel to some, it may be necessary to state, that in Germany, where so many excellent universities exist, as well as others of low reputation, and, consequently, where degrees present every variety, from the highest to the lowest standard, each country has established, what is termed the STATE EXAMINATION, which the graduate must pass before he can obtain a license to practise. This examination is consi-

dered a more severe test of the candidate's attainments, than that by which he has procured his degree, and acts as a salutary check upon the universities. When graduates of Bonn, Heidelberg, Goettingen, and Vienna submit to a second trial, our graduates cannot complain if we exact the same. We trust, therefore, that this important question will meet with attention from our Upper Canada brethren, and that some decision will be arrived at.

ST. PATRICK'S HOSPITAL.

Since our last notice of this Institution, the splendid building, known as the Baptist College, with the ground attached to it, have been purchased for the uses of the Hospital, and at this moment, the necessary alterations are going on with great rapidity. The building is one of the most beautiful and capacious in the city, and when the internal arrangements are completed, will be capable of containing from 300 to 400 patients, though, at present, it is not intended to admit more than 160. The nuns of the Hotel-Dieu will act as nurses. One peculiarity of this hospital is, the large accommodation for *pay patients*: being originally intended for a College, 32 bed rooms were situated on the second flat, the greater portion of these will be retained unaltered, and will be neatly and comfortably furnished, for private patients, who will be charged from \$2 to \$7 per week, for board, lodging, &c., the medical attendant's fees being, of course, a separate charge. This will be a great accommodation to patients resorting to Montreal for advice, for here they can retire from the bustle and confusion of an hotel, and being under the constant surveillance of the sisters of the hospital, their every want will be attended to, not by those who expect pecuniary reward for the smallest act of civility, but by those who have devoted their lives to the care of the sick. How often has the merchant's clerk, or the young student, been obliged to leave his boarding house or hotel, when attacked with sickness, to seek admission to the residence of some friend or relative, because his illness might be injurious to the interests of the house or hotel in which he resided?—now, he can apply for a private ward in St. Patrick's Hospital, he can make his selection of a physician from the medical staff, and is sure of being watched and tended throughout his illness with more than a mother's care, he can command a visit from his medical man as often as he pleases, and when necessary to take exercise, he can do so on the grounds connected with the establishment. It may be supposed by some, and, no doubt, will be urged by others, that protestants will not be admitted to these advantages, but such is

not the case; *patients of all denominations and origin will be admitted without distinction*, and no effort will be made to tamper with the religious faith of the inmates. At this moment, there are private patients, members of the Churches of England and Scotland, under treatment, and since its commencement upwards of 30 protestants have been admitted. The benefits of the Hospital are not confined to residents of the city, as is the case in the Montreal General Hospital, but are open to patients from all parts of the Province, and at present, persons from nearly every town in Upper and Lower Canada, are to be found in it. Poor patients from the country are obliged to bring with them a certificate from a Clergyman or Physician of their being in a state of destitution, otherwise, they will be charged a small sum weekly for board whilst in hospital.

As before stated, the existence of such an establishment will be very convenient to our brethren in the country districts, who can now send in such cases as they find it impossible to attend, whether this arise from distance of residence, poverty, or want of nursing, on the part of the patient. All such will be admitted to St. Patrick's Hospital.

In a future number, we will lay before our readers more minute information concerning this Institution, which is now the largest, handsomest and best situated Hospital in British America, and from the arrangements that are about being made to receive patients labouring under all forms of disease, as well as Midwifery cases, it must become the *Provincial Hospital for Canada—and the CLINICAL SCHOOL for the entire Province*, no matter how many Universities and Incorporated Schools we may have scattered throughout the country, for in no other, will the student see every variety of disease, and be able to study all branches of his profession, under the same roof.

Notice to Correspondents.—We have again to inform our correspondents that we do not intend publishing any communications which are not authenticated with the real signatures of the writers, and whenever allusions are made to individuals, these latter must be named. We do not insist on publishing the names of the writers, or those of the persons to whom they allude, but will suppress them if required; but we must have them confided to us, or we can take no notice of the communication. These remarks have been suggested by the receipt, amongst others, of some letters complaining of the nature of the examinations, held at the recent meeting of the College of Physicians and Surgeons,

one of the candidates being asked to describe the "*method of passing a ligature round the ophthalmic artery,*" and that the same candidate was asked to describe the "*prostate gland in the female.*" We know nothing of the matter, and advise our correspondent to apply to the officers of the College for redress, if he think himself ill-used. The second writer complains that—

"In several instances within a short period past, have some of the older members of our profession prevented their younger colleagues from being joined with them in the examination and treatment of difficult cases. This injustice, in some instances, has been perpetrated indirectly, covertly; the patient's preference for a young man has been so nicely hinted, that a sensitive mind has yielded its judgment and wishes to its feelings, the name of an older colleague has been suggested as that of a man of "experience," when his qualifications to discriminate in the case in question were well known, as inferior to those of the slighted person; in others, the injustice has been more openly, more directly committed; the "attending" physician has refused to meet another with whom he was professedly on good terms, but whose only fault was, the "atrocious crime of being a young man," or, conscious of his influence over his patient's affections and esteem, not only has he injured a 'brother,' but even more, his patient's feelings, by the indulgence of unbefitting anger and annoyance at the mention of a junior practitioner's name. Surely this is unfair treatment. Is this doing to others as they would have others do to them? Or appealing to a lower, yet admitted standard of morals, is it in accordance with the teachings of Medical Ethics."

We recommend to this young physician the *lex talionis*, whenever these *ancients*, from whom he has received such bad usage are proposed in consultation, let him refuse to meet *them*.

Dr. Carter's letter has been answered by Mail.

NEW MEDICAL JOURNAL.—*The East Tennessee Recorder of Medicine and Surgery,*" edited by Frank A. Ramsay, A. M., M.D.—This is a very excellent Journal, containing a great deal of original and selected matter, and we feel confident it will have a long and prosperous career.

DR. WIDMER'S CIRCULAR.

To the Medical Profession of Canada West.

GENTLEMEN,—

Many circumstances connected with the progress of this country, have hitherto conspired to keep the Profession to which we belong, and by which we live, in a comparatively subordinate place in the social scale. It appears to me that the only obstacle to our attaining the position to which we are entitled from every consideration, is the absence of unanimity among ourselves—an evil engendered by the ignorance in which we live, not only of each other personally, but of our mutual wants, opinions, and acquirements.

To remove this barrier must be the desire, I am sanguine enough to believe, of every conscientious and enlightened practitioner,—I, therefore, invite you, as many as can conveniently attend, to meet in this city, on Thursday, the 1st day of July, for the purpose of taking such counsel together as may lead to a course of action calculated to place the Profession on a proper footing.

I make this appeal to you, because I feel deeply interested in the welfare of a Profession of which I have been for many years an active member in this country and elsewhere, and because I believe I am one among the oldest of the practitioners in this Province. I invite you to meet here, because it is the capital of this Province, easily accessible at that season from all parts of the country, and because a point of centralization is necessary in every undertaking of this nature.

Should it be considered a more convenient mode of proceeding, I suggest that each county should assemble, and elect a number of delegates who would represent the views of their constituents. Permit me to make one request in connection with this point, should such a plan be adopted: banish from your minds every other consideration but the interests of your Profession, and select men of experience, education, and enlightened views.

I am, Gentlemen,

Your most obedient servant

And sincere well-wisher,

C. WIDMER.

TORONTO, *May* 14, 1852.

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.443
1 Centimètre.	4½ Lines.	0	0	4.433
1 Décimètre.	3 Inches 8 Lines.	0	3	8.380
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Old Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		399
The English Foot.	30 Centimètres.	304		794
The Yard. (3 Feet.)	91 Centimètres.	914		888

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	1 Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	3	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	35.15
Old Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 Centigrammes	6 Grammes		033	
1 Gros.	4 Grammes.	3		82	
1 Ounce.	30 Grammes.	30		59	
1 Pound.	500 Grammes.	489		50	

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.		
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	.	39.370788 inches. 3.280899 feet. 1.093633 yard.
Décimètre, 1-10th of a mètre .	.	3.937079 inches.
centimètre, 1-100th of a mètre.	.	0.393708 inch.
millimètre, 1000th of a mètre.	.	0.03937 inch.
Measures of Weight.		
Kilogramme, weight of one cubic decimètre of water of the temperature of 39° 12' Fahr.	.	2.6803 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	.	1.5438 grains troy. 0.9719 scruples. 0.032 ounce troy.
Décigramme, 1-10,000th of a kilogramme	.	1.5438 grain troy.
Centigramme, 1-100,000th	.	0.1543 grain troy.

CANADA MEDICAL JOURNAL.

VOL. I.

MONTREAL: AUGUST, 1852.

No. 6.

ORIGINAL COMMUNICATIONS.

ART. XXVIII.—*Successful Removal of a Parotid Tumour.* By ROBERT L. MACDONNELL, M.D., Surgeon to St. Patrick's Hospital, Lecturer on Surgery, St. Lawrence School of Medicine, &c., &c.,

ABOUT the middle of June, 1851, my friend, Dr. Mount, requested me to examine a young man from the country. The patient's face and head were concealed from view, by a large piece of linen, which, on being removed, disclosed a frightful phagedenic looking ulcer, which had almost completely removed the left cheek, exposing the teeth of the upper and lower jaws, the side of the tongue, &c. From this ulcer exuded a foul foetid discharge, mixed with saliva and particles of half masticated food.

The edges of the ulcer were irregular and sloughy, but not indurated, and the parotid gland appeared to be implicated in the disease, for it was enlarged and prominent, and advanced down for nearly an inch below the level of the angle of the lower jaw. At this examination, the patient being in the street near my own house, I concluded that the ulceration had been caused by malignant disease, and advised that palliatives should be employed, and no attempt at eradication should be resorted to. Being at the time on my way to an urgent case, I paid no further attention to that now under consideration. Some time after, Dr. Mount mentioned to me as a very curious fact, that he had learned from a friend of the patient's, that the ulcerated aperture had become closed, and that the disease had been arrested without any application whatever being employed. The patient entered St. Patrick's Hospital under my care in the month of February, 1852, when the following particulars were ascertained, of which we had hitherto been ignorant:—The disease commenced about two years previous to our first examination, in the form of a small, hard tumour, situated in the region of the *socia paroti-*

dis gland. This tumour gradually increased, and soon attained the size of an egg, the parotid itself undergoing increased size, and becoming hard and painful subsequently. During the progress of this tumour, much pain was experienced in all the movements of the jaw, in the act of mastication and speaking, and laughing and yawning were excessively distressing. He also observed that symptoms indicating paralysis of the portio dura manifested themselves—the mouth was drawn to the opposite side, and in eating, portions of food used to lodge between the cheek and gums, &c. Not obtaining any relief from regular practitioners, he sought advice from an itinerant “cancer doctor,” who applied a plaster, which was allowed to remain on the tumour for forty days, and at the expiration of this period, the original tumour and the greater portion of the cheek sloughed away. It was soon after this event that he presented himself to Dr. M., who then brought him to my residence, but being at the time much hurried, the cursory examination already described was all that was made, and the patient returned home immediately. According to his statement, the ulcerated surface quickly granulated, the chasm in the cheek was rapidly filled up, and the parotid tumour remained stationary at first, but recently had commenced growing, and was extending downwards below the posterior digastric space, and backwards under the insertion of the sterno-mastoid muscle, and this extension of the disease was accompanied by severe neuralgic pains along the superior branches of the portio dura, and also along the course of the occipital and spinal-accessory nerves; he had also severe constant pain in the ear, and deep seated pain in the locality of the glenoid fissure, and adjacent parts. The tumour was hard, regular on its surface, not painful to the touch, moveable to a certain extent, particularly above, the integument covering it was healthy, not presenting any where a malignant aspect, and apparently, the communication between this tumour and the region around the former one, was quite cut off, in other words, it appeared as if it had been, from the commencement, a separate and distinct growth. The superficial portion of the tumour gave one the idea of the whole mass being about the size of a turkey’s egg, but its exact dimensions could not be determined accurately. The patient’s appearance was remarkably healthy, and all who saw him were surprized to see one who was to all appearance in rude health, the probable subject of malignant disease. As both the patient and his friends were extremely anxious to have the tumour removed, I acceded to their request, the more willingly, as the result of the cancer plaster proved a strong disposition in the system for repair, and the duration of the disease, as well as its being so little influenced by the irritation immediately around it, seemed to justify me in expecting a successful

issue from the operation, provided the tumour *could be removed*. Moreover, the cicatrix which followed the sloughing was firm and good, and exhibited no trace of degeneration, and there was no enlargement of any of the lymphatic glands in the neighbourhood. Accordingly, on the 13th March, I operated in the following manner:—The tumour was exposed by dissecting off the integument in three flaps, converging at a centre which corresponded to the most prominent part of the tumour. This being done, the difficulty of the operation commenced, and that consisted in detaching the superficial cervical fascia from the growth, for it had become condensed, hard and gristly, and bound down the growth so firmly, that at one time it appeared almost impossible to detach it from the mass, so as to enucleate, or dissect it out. Some idea may be formed of the resistance this apparently insignificant structure presented, when I state, that I was obliged to have recourse to a second scalpel, the first, (a new one by Weiss,) having been soon blunted. The more I cut, the deeper I got, but no nearer, as it seemed, to the isolation of the disease, when it occurred to me to use a director, and having shoved it under layer after layer of the fascia, they were in succession divided. As soon as I had succeeded in isolating the circumference of the tumour, its extraction from its deep seated relations next occupied attention, and in this stage the edge of the knife was kept close upon the tumour, and all suspicious structures carefully examined before being divided, and the handle of the scalpel was freely used. It was now found that the disease went down farther on the neck than was supposed, and that it also sent a process dipping into the substance of the sterno-mastoid muscles, where the spinal accessory nerve passes through that muscles (which it did in this instance much higher than usual) and proceeded in a posterior direction, until it impinged upon the cervical plexus, which nerves, together with the spinal accessory, were fully exposed in the progress of the dissection, and seen by all present when the tumour was removed. Some parts of the disease which dipped into the net-work of the plexus were carefully dissected out, and a portion of the sterno-mastoid was removed along with them. The mass being removed, the finger passed freely upwards under the zygoma; under the angle of the jaw, between the pterygoids and inferiorly to the cervical plexus, it could also be passed into the fossa corresponding to the glenoid cavity, at the bottom of which, the strong pulsation of the external carotid was very perceptible, and the styloid process and the muscles attached to it were likewise observed. No other structure was perceptible. A small degree of hæmorrhage from the surface took place at the beginning of the operation, and *only two*

*small vessels, branches of the anterior auricular, and occipital (?) required ligatures.**

On examination, the diseased mass presented the character of a fibrous tumour, in some points degenerating into scirrhous—this latter feature was not, however, strongly marked. It was much smaller than was supposed before the operation, for a great part of the size of the tumour was formed by the sterno-mastoid which overlapped one portion of it, and was intimately connected with another part.

The wound was filled with a pledget of wet lint, and the flaps brought loosely together. Five hours after, the wound was dressed; some oozing had taken place, and one more small twig required a ligature. The edges of the wound were now brought into contact by means of sutures, a space in the centre being but loosely united, that the discharge might freely escape. A compress and bandage served to obliterate the cavity, and were retained for three days, when the sutures were withdrawn, and union by the first intention was found to have taken place to a great extent.

It would be useless to detail the changes of treatment which the varying condition of the wound suggested, suffice it to say, that at the end of 16 days he was discharged at his own request, the wound being then perfectly healed, and he himself free from all his sufferings.

There are some points connected with this case not devoid of interest to the practical surgeon, to which allusion will now be made: and first I shall speak of the opinion so generally advanced by *anatomists*, that the parotid gland *cannot be extirpated*, and which is as strenuously denied by *surgeons*. Not only in this, but in many other particulars do we find that the skilful anatomist is not always the best guide to the operating surgeon; and that diseased anatomy frequently runs counter to normal anatomy, and the facility or difficulty with which an operation may be performed, cannot always be determined with exactness by our knowledge of the normal structure in which the disease has originated. Can a stronger proof of the truth of what I now advance be adduced, that the fact, that it was necessary to tie but three small vessels in the operation under consideration, when we reflect upon the numerous arteries that supply, and pass through the region, in which the mass lay.† It is needless then, to advance the *certainty of alarming*

* Had the carotid been tied previous to the operation as recommended by Mott and others, this immunity from hæmorrhage would, no doubt, have been attributed to this precautionary measure.

† The arteries that may be wounded are, in addition to the carotids, the transverse facial, the temporal, the auricular, the mastoid, the stylo-mastoid, the occipital, the internal maxillary, the inferior pharyngeal, the lingual, and the facial.—*Malgaigne's Operative Surgery*, page 368, *Am. Ed.*

hemorrhage, as an argument against such operations. But, it has been said, that in the instances of supposed removal of the parotid, it was only the *socii parotidis* that was extirpated. This may be so in some cases, but in the example now before us, the mass extended into most of the recesses usually occupied by the parotid, and advanced into regions in which that gland is never found in its healthy condition, and as neither the parotid itself, nor any part of it, was noticed during, or after, the operation, we must infer, either that it had degenerated into a morbid mass, although a change to which the salivary glands are by no means prone, or that it had been partly absorbed by pressure, some parts of it, in the deeper regions between the external and internal carotid, around the masseter, and deep at the glenoid fissure still remaining. Such may have been the case, but I cannot consider it as similar to those in which a tumour has been *peeled off* the parotid, one of which has recently been published by an eminent surgeon, as a type of parotid tumours, but of which variety, most surgeons have seen examples.

This case also exemplifies the difficulty occasionally experienced in determining the size of cervical tumours, and the direction they take; for I need not say, that I did not suppose the disease took so irregular a course, or was connected with so many and such important parts, though I was prepared to abandon the operation at any stage of the proceeding, if impossible to complete it without subjecting the patient to too great a risk. In illustration of this difficulty, I may mention that my friend and former clinical clerk, Dr. McCallum, informs me that he recently saw Mr. Lawrence at St. Bartholomew's, obliged to abandon an operation, in a case of cervical tumour, after he had proceeded to a considerable extent, in consequence of the great and unsuspected attachments of the tumour.

On the other hand, the surgeon not unfrequently meets with tumours which appear to be deeply attached, and which, on the integuments being removed, admit of easy extirpation. On this subject, more extensive clinical observation is much needed.

ART. XXIX.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the lecturer on Hebrew Language and
' McGill College, &c.

in page 141.)

illustration is supplied by the profound
"De Legibus Hebræorum Ritual-
he shows us how the heathen used

History and Philosophy of Judaism,

blood, and sometimes, even human blood, by way of lustration. They imagined that the blood of their sacrifices was the favourite food of their demons. For this reason they were at the greatest pains to preserve it for them in some vessel, or when this was not at hand, in some hole in the ground. And then, while they ate the flesh, and the demon, as they imagined, drank the blood, they hereby not only declared themselves his votaries, and professed to hold communion with him, but considered themselves as having become purified.

Moses Lowman, in his "Rational of the Ritual of the Hebrew worship," well remarks on Leviticus xix, 26, " ' *Ye shall not eat anything with the blood* ' ought to be rendered *at* or *before* blood, and is an allusion to the idolatrous worship of demons by gathering blood together for them, as supposed their food, and coming themselves and eating part of it, whereby they were esteemed the demon's guests, and by this kind of communion with them, were supposed enabled to prophecy and foretell things to come—to have familiarity with these spirits, as to receive revelations and be inspired with the knowledge of secret things."

On an attentive and dispassionate * perusal of the 17th chapter of Le-

* We advisedly say "dispassionate," and assure our readers that here, as well as in every line we have yet written, we have earnestly sought to divest ourselves of all theological bias, being fully conscious that the character of our subject demanded this from us, and being quite mindful that our interpretation of the sacred volume would materially differ from that of many of our readers. And we do therefore humbly hope, that having sedulously endeavoured to avoid all of a dogmatic character in what we have hitherto advanced, we shall not be suspected of seeking covertly to propagate our peculiar views. We further hope, and indeed, are in the happy belief, that we are not living in a day when a believer in the divine inspiration and authority of the Holy Book—a descendant of those who, at the risk and expense of their lives, have preserved and transmitted this book to us—that we are not living in a day, when, because our interpretation of some portions of it may not be identical with that of the majority of our fellow-men, we therefore may not open this blessed volume, to direct their attention, not to a matter of a dogmatic theological, or controversial tendency, but to examine with them what light it throws on a scientific question, which, though it has but for a comparatively recent period engaged men's attention, is nevertheless of the last moment to them. Nor are we willing to believe that we cannot occupy common ground, and that we have not been warranted in seeking to defend the sacred page from the insidious attacks of the scoffing and ignorant unbeliever, as we have endeavoured to do by adducing testimony of the highest order to the truth of the Scriptural teaching of the vitality of the blood. And although we may be charged with dwelling too long, on a topic, not indispensable to our main subject; yet do we trust that our reason for so doing will be our excuse. The idea with us has been, who shall say that there are not those to-day, and that there will not be those to-morrow, ready to deny the Scriptural teaching on this point! It is reasonable to suppose that there are to be found those, less qualified to give an opinion than the learned Blumenbach, ready to do so. These

viticus, already referred to, we think further strong support will be found for the opinion of Maimonides, that one of the reasons for the prohibition of blood was to put an end to idolatrous practices. The chapter commences with the command to both priests and people, that any making a meat sacrifice or "killing an ox, lamb, or goat, in or without the camp, and not bringing them unto the door of the tabernacle of the congregation, to offer an offering unto the Lord before the tabernacle of the

remarks we have considered as being called for, by some of the reviews of our humble endeavours, which have appeared in the public press. And although we are of opinion that, as a rule, it is neither necessary nor wise to notice such,—we speak with all due respect, and with friendly and grateful feeling for the flattering manner in which all have spoken of us—yet, as they may be the sentiments of some of our readers, we shall beg leave to take notice of some few. For the reasons already assigned in this note, more especially in that we have avoided all of a dogmatic character, we cannot agree with one writer, that any objection can attach to what we have advanced, because "it cannot be discussed in opposition to the writer's views, without raising theological questions which have nothing to do with science proper." We beg leave to repeat that we have avoided, and shall continue to avoid, all theology that is not common to Jew and Christian. If defence of a Scriptural assertion, bearing on a matter exclusively scientific, be likely to raise the theological questions to which this writer objects, then, we fear, that in opposition to his views, and at the risk of his future censure, we must persist in our past course. We cannot admit that the Scriptures, even if we do that theological questions, have nothing to do with science proper, for we believe that much valuable scientific information has originated from the Scriptures. On reference to what we have already written, we think we cannot be charged with obtruding our own views on the subject, we have merely, as a matter of information, shown our readers what has been advanced in sources, some attainable, some not generally attainable, to them. We of course feel incompetent to decide, as does our critic, whether we be a better pathologist or theologian. But we do feel ourself called upon to dissent entirely from his assertion, that "the human constitution must have changed very much in the course of the last few thousand years, if the rules of Leviticus are at all applicable now," We must not anticipate our subject, but we would ask, under what general heads may the laws of Leviticus be comprised? We can but answer, under those of caution, abstinence, moderation, cleanliness, and purity, and therefore we can but add that the human constitution must have changed very much in the course of the last few thousand years, if the rules of Leviticus are not *quite* applicable now. We do not wish to speak disrespectfully, of or to underrate at all, the learned and accomplished Meade, but we do think that some further support and better illustrations of our critic's assertion should have been given, and is called for, than that adduced by him; which is simply that "Meade (*Medica Sacra, Lepra Morbus*, p. 12) says that no trace is to be found in either Greek or Arabian authors, of leprosy in walls or garments; that the Hebrew doctors themselves admit that no such disease was known in *universo mundo*, excepting '*Sola Judea et solo populo Israelitico*.'" We must remind the writer that others besides Meade have written on the leprosy; but admitting, to the fullest extent, the correctness of Meade's assertion, does it follow because the disease has disappeared, that, therefore, the principles of treatment laid down in Leviticus are

Lord, blood shall be imputed unto that man, † he hath shed blood, ‖ and that man shall be cut off from among his people. V. 5. To the end that the children of Israel may bring their sacrifices which they offer in the open field unto the Lord unto the door of the tabernacle of the congregation unto the priest, &c. V. 6. And the priest shall sprinkle the blood, ‡ upon the altar of the Lord, &c. V. 7. That they may no

wrong and inapplicable now. We think the contrary to be the case, and that the disappearance of the disease, so to admit, speaks trumpet-tongued in favor of such principles of treatment. And if right and applicable then, why not now, when, as the writer himself admits, diseases are disappearing and *reappearing*? But further let us ask, whether the treatment prescribed in the case of contagious leprosy (for that the leprosy spoken of in Leviticus was contagious, there can be no doubt,) is not even now adopted in treating contagious diseases, and whether in small-pox, measles putrid fevers and the like, separation and cleanliness, which is mainly the treatment prescribed in Leviticus, is not now, after an experience of thousands of years, prescribed in such cases of contagion. We are fully prepared to admit with the writer that "the nature of disease is continually changing, old diseases wearing out, and new ones springing up;" but as we have seen, from the example he himself adduces an admission of this fact is not necessarily an admission that the principles of treatment which were efficient in preventing or removing diseases once, must be wrong or inapplicable now. In our introductory remarks, we observed that "the legislation of Moses, son of Amram, contains the wisest and most valuable principles, recommendations and enactments on the subject of health, which, though thousands of years have elapsed since their enunciation, do yet remain like 'all which proceedeth out of the mouth of the Eternal,' just as valuable, and just as wise, as when first revealed for the edification of the Hebrew people, and are therefore, now, as then, fully worthy our most attentive and reverent consideration." Now, although we cannot flatter ourself that we have already "made our case good," as another critic has been pleased to say we have, yet do we not withdraw one iota of our expressions just quoted, and in taking leave of our critic, which we do with all kindly consideration and respect, we cannot but think, that after due consideration of the very little he has advanced in support of his position, the hygienic laws of Leviticus are good, are wise, are valuable, and are quite applicable to the human constitution even now.

† According to Rashi, he shall be considered as a man-slayer, and be responsible for the life of the animal sacrificed contained in the blood which flowed in an improper place.

‖ This repetition Rashi thinks is intended to convey, that he who does not *sprinkle* the blood in the proper place, is included in the condemnation of the text.

‡ "The blood of the victim was received by the priest in a vessel for that purpose called *pram* and was scattered at the foot, and on the sides of the altar. The blood of sin offerings was likewise placed upon the horns of the altar, and if they were offered for the whole people or for the high priest, it was sprinkled towards the veil of the Holy of Holies; and on the day of propitiation on the lid of the ark, and likewise on the floor before the ark. The blood was also placed on the horns of the altar of incense; a ceremony which was termed by the more ancient Jews *ḥatṭat* expiation, but by those of later times *ḥatṭat* a gift. Lev. 4, 7. 8; 15, 16. Zech 9, 15; Num. 18, 17." *Jahn*.

more offer their sacrifices unto devils, after whom they have gone a-whoring. * This shall be a statute for ever unto them throughout their generations." The intention of these words, we think, cannot be mistaken. It is evidently to secure the direction of divine worship to its proper object, and to put an end to idolatrous practices. In verses 8 and 9, the same directions and penalties are laid down with reference to burnt offerings or sacrifices. And then (v. 10) evidently and unquestionably, in the same connexion, follows the prohibition and penalty against eating blood; *all blood* is the expression used by the text, because, as Rashi aptly remarks, "the principle being laid down in verse 11, that it is the blood that maketh an atonement for the life (nefesh,) and as the Israelites might conclude that reference here was only made to the blood of animals consecrated for sacrifice, therefore the text explicitly states *all blood*." Next follows as we conceive another reason why blood should not be eaten, viz. ; "for the life of the flesh is in the blood," V. 11. And I have given it you upon the altar to make atonement for your life, (nefesh,) for the blood maketh an atonement for the life, (nefesh.) † V. 12. Therefore have I said unto the children of Israel, no soul of you shall eat blood, neither shall any stranger that sojourneth among you ‡ eat blood, &c. In verse 13, the blood of beasts or fowl that may be eaten, is directed to be *poured on the ground* and to be *covered with dust*, another preventive of idolatrous practices. In verse 16, we are again told that blood is the life of the flesh, the blood of it is for the "nefesh" or life thereof, and that hence is the prohibition. Further support to the opinion of Maimonides may be deduced from the 19 chap. of Leviticus, 26th verse, "Ye shall not eat anything with the blood, neither shall ye use enchantments nor observe times." The connexion of the one prohibition with the latter having reference to idolatrous practices, we take to

* Aben Ezra well remarks, that all who seek and serve the devil-gods or idols may most fitly be said to be faithless to the true God to whom they are betrothed by covenant. Can any one suppose, he asks, that there can exist any other cause of good or evil, but the Holy One, blessed be He!

† On this passage Rashi remarks, "For all healthfulness of life depends on the blood, therefore, saith God, I have appointed that ye pour the blood on my altar, since by bringing me the life-blood of beasts, you show you have considered your own life has been forfeited by you, and you bring one life, which I have already permitted you to take, in place of another." We do not use the exact words of Rashi, but endeavour briefly to give his meaning.

‡ Since we find here the prohibition is extended to proselytes also, we may perhaps see an additional reason in favour of the opinion of Maimonides. The proselytes were forbidden it, as they were idolatry, since their example might prove contagious. Hence, as Aben Ezra remarks, the command to cover the blood in v. 13, also applies to them.

be very significant, especially as the following verse has evident reference to the same subject. In Duet. ch. xii, v. 16, the prohibition to eat blood is repeated, and the command to "pour it upon the ground like water;" and at verse 27, the blood of sacrifices is to be poured upon the altar of God. Again at chap. xv, v. 23. The incident in the first book of Samuel, ch. 14, v. 32-34, would tend to show that the people of Israel considered the majesty of heaven peculiarly outraged by the eating of blood there spoken of. King David appears clearly to point out the connexion between the prohibition of blood-eating and the idolatrous practices of the heathen. He says in the 16th Psalm, v. 4, their sorrows shall be multiplied that hasten after another god, *their drink offerings of blood* will I not offer, &c." We will not seek for further illustrations, but trust that sufficient have been adduced to show that the opinion entertained by Maimonides is not without scriptural warrant.

The third reason for the prohibition of blood, viz, because of its vitality, must have been anticipated by a perusal of the scripture passages already quoted. There is but one passage more, to which we would more fully refer here. It is Deut., ch. 12., v. 23, "Only be sure (Heb. Be strong) that thou eat not the blood, for the blood is the life (nefesh)*; and thou mayest not eat the life (nefesh) with the flesh.

* As involving a question of general interest, and bearing immediately on our subject, we would, briefly as possible, notice here some remarks made by a critic in a sister city on our observations on the Hebrew word *nefesh*. The writer says that we "endeavour to show that the Hebrew word "*nefesh*" signifies not so much the spirit, or seat of the volitions and affections, as life, mere animal life, and that the name is in a peculiar manner applied to that wonderful fluid, the blood, &c." Now, "with the utmost deference to the learned writer we beg to be permitted to state, that" after reading over our observations, we cannot find that we have written what he thinks we have. We gave no opinion as to what is *always* the meaning of "*nefesh*" but simply quoted from authorities of the very highest order, to show that we were quite warranted in translating it *life* in the *ninth chapter 4th verse of Genesis*. We did not think it at all necessary to enter too fully into the vast field of philological dissertation, especially, too, when it might lead us into the still vaster field of theological disputation. But as our attention has been called to the matter, we think it right to say that our opinion really is that נפש (nefesh) never means soul, as our critic seems to think, but that the word נשמה (neshama) does. And this conclusion we form from no theological leaning. That great Christian Hebrew scholar, Parkhurst who can by no means be accused of having or showing any great respect for Rabbinical or Jewish interpretation, bears us out in our conviction, that "there is no passage in which it hath undoubtedly this meaning, but in those which seem fairest for this interpretation, it means a breathing, or animal frame." See our quotation from him. There is nothing at all spiritual in the root which is נשם (nafash) to respire, take breath, without reference to the soul. A sufficient confutation of contrary opinion is contained in the very passage quoted in support by our critic. "The Lord God formed man of the dust of the ground, and breathed (נשם vayipach) into his nostrils

Thou shalt not eat it, thou shalt pour it upon the earth as water. *Thou shalt not eat it*, that it may go well with thee and with thy children after thee, when thou shalt do that which is right in the sight of the Lord." The most emphatic form of expression, it will be perceived, is here used with reference to the prohibition; the reason of it again assigned, being because of its vitality.

The foregoing reasons assigned for the prohibition of blood-eating may be considered as the *moral*. But it has ever been traditionally held

a living soul, נִשְׁמַת חַיִּים (nishmat chayim), in regimen, literally, a soul of life, just as the law is elsewhere said to be a עֵץ חַיִּים (a tree of life, gets chayim,) or living tree. Observe the word employed in this passage, which in common with most Jewish and Christian commentators, we understand as teaching the infusion by God in man, not only of his life, animal life, but his spiritual life, too, indicated by the word "neshamah." We particularly observe that "nefesh" is not here used, but "neshamah." The text concludes, "and Man became לֵנֶפֶשׁ חַיָּה (lenefesh chaya,) a living being; i. e., the dust shaped by the hand of Omnipotence, became by the divine agency, a man, a living being; a rational one, too, the text teaches us, since we find the just-shaped earthly mass receive a "neshamah" or soul. We presume none will venture to deny that "nefesh" does not very frequently signify in the Scriptures, a person, an individual. If there should be any, notwithstanding that every Hebrew lexicon of any character would prove their error, we will refer them to a dozen passages occurring in Leviticus alone, where it can mean nothing else, to wit, ch., 4, v., 2; 4, 27; 5, 2; 5, 4; 5, 15; 5, 17; 5, 21; 7, 27; 17, 12; 17, 15; 22, 6; 22, 11. Nevertheless upon the strength of the passage from Genesis just quoted, the assertion is made that "nefesh" does not signify life, and is not therefore identical with the blood. We never said, as our critic appears to have understood us, that "nefesh" life is identical with "dam" blood. We think, on the contrary, the words convey two very distinct ideas, notwithstanding our belief, that life has connection with the blood; therefore, he has formed his conclusion rather hastily and unwarrantably. We concur with the following passage from the writer, except in one small, but important, particular, upon which we shall remark within brackets. "Until the breath of life was breathed into man's face, the "nefesh" was dead. [We would rather say it was *the body* that was dead especially since the writer joins with us in the belief that the animating principle was directly bestowed by God, and that then man became a living being; he adds] the soul wanted animation. [To say the least of it, we think that this expression of our author involves some little self-contradiction. We again repeat it was *the body* that wanted animation, not the soul, and the contradictoriness of our critic's assertion is shown in this; he first asserts that "nefesh" means soul, and then that the *soul wanted animation!* Now to find such an assertion as the latter made by a religionist, a reverent Scripture reader, and a scholar, all which our critic evidently is, we think an amazing thing. Surely he shares the belief that man's soul is an emanation from God, is immortal, and consequently, that it never was dead in Adam, but that from the moment it was breathed in him, from that moment it lived—ay—and lives even now, while we write, and while he reads. The writer continues, "True, Mr. De Sola may allege that this breathing into the face or nostrils has reference to the first circulating of the blood, and suggested the practice adopted in cases of suspended animation from drowning or other mode of suffocation. [We have

by the Hebrew people that the prohibition of blood is also a Sanatory law, in other words that blood-eating is forbidden on account of the baneful effects of the practice, physically. And we hold that sufficient intimation of this is given in the sacred volume itself, irrespective of what may be contained on the subject in the Talmud and other authoritative sources. That the practice is really a bad one in a sanatory point of view, we think is shown, 1st, by the Scriptures; 2ndly, by the commentators; and, 3rdly, by other authorities.

1. *The effects of blood eating are shown to be physically bad by the Scriptures.* We shall quote a few passages only, thinking they are sufficient to show that the fact is clearly intimated by inspiration. It is *clearly conveyed in the whole of the ceremonial law*, which, we presume it will not be denied, was intended to promote the physical as well as the moral well being of the Hebrew. The practice is spoken of as one that defileth. And in the prophets it is also spoken of as a practice of baneful effects; one passage will perhaps suffice. In the book of the prophet Isaiah ch. 49, v. 26, God in denouncing his heavy judg-

already given our ideas on this subject.] Perhaps so, but it shows that there are in the Hebrew, distinct words signifying the life, the soul, and the blood, things quite distinct, however closely related to each other they may be. [We agree here *in toto* with the writer, and hence our humble attempt above to show that what meant soul did not mean life, as according to his views of "nefesh," it must needs do.]—And more that with respect to the reason for the prohibition of the eating of blood, Mr. De Solà is labouring under a mistake. [We can scarcely consider this remark written with that fairness which it is due to state our critic has throughout displayed. We have as yet merely given not as our own opinion, but as the opinion of celebrated Christian and Jewish authorities, *some* of the reasons assigned for the prohibition. Had our remarks on the prohibition of blood been at end, we might then be justly charged with overlooking those reasons of most import, and more immediately having reference to the Sanatory Institutions of the Hebrews. As will be presently seen, we have by no means overlooked these reasons. Our critic continues,] David did not when he said, "elecha adonai nafshi essa," unto Thee O Lord I lift my "nefesh," surely intimate that he offered only his life's blood as a sacrifice to the Lord." Thus far our critic. We think that David as an Israelite might and really did use the word as signifying life. And without reference to that theological dogma involved by raising this question, and upon which the writer and ourself necessarily differ, we may be permitted to say that David may convey that in this word he offers to God all he could, and which we should all offer him—the undivided earnest devotion of our "nefesh," that is of our life—a mode of expression, as common to the Hebrew, as to the English language, conveying all the functions, the source, and energies of life. But as we are disqualified here from entering into questions of a dogmatical controversial character, we must beg to take a friendly leave of our critic, and in so doing, must apologise to our readers for detaining them so long from our main subject, which we have done only because we have been assured they were concerned in the important questions this note involves.

ments against those who oppress Israel, proclaims the following as their awful punishment, "And I will feed them that oppress thee with their own flesh [what would be fearful effects of "eating their own flesh" must be known to all; in the same connexion the text immediately adds] and they shall be drunken with their own blood as with sweet (or new) wine." Here the text we think clearly and aptly illustrates the effects of blood eating, which, as has been indisputably shown by experience, has really the same effect, when taken in quantity, as wine; for it both maddens and stupifies, and this whether human blood or the blood of beasts. In the same way speak Jeremiah, Ezekiel and the other prophets. And with inclination and opportunity it would perhaps be no difficult matter to show that among the earliest Christian churches they abstained as "necessary things" from "things strangled and from blood," because they considered the command, tending not only to promote the health of their soul but of their body too.

2. *The effects of blood eating are shown to be physically bad by the commentators.* The Hebrew writers constantly and earnestly inculcate a loathing, we might rather say an abhorrence, of the practice, which they regard as destructive both to body and mind. They regard blood as a most unwholesome article of diet, and as inducing a gross, plethoric, and vitiated state of body. Some fifteen centuries back, the Talmud, in its concise but emphatic manner, proclaimed—and it then merely repeated old teachings in Israel בריש כל מרעין אנו דם (the main cause of all disease is blood).^{*} Again in the same passage בריש כל מותא אנו דם (the main cause of all death is blood.) And again דם רבא שחין רבא (much blood, much scurvy.)[†] But as we shall presently have occasion to call the reader's attention to those constitutions of the Jewish ritual having especial reference to this subject, and as our limits therefore will forbid our multiplying quotations, we think it proper to state at once those objections with which Christian commentators have supplied us. Our limits will compel us to brevity here also, wherefore we can do no better than to present what we may regard as a digest of Christian commentary supplied us by the learned Dr. Townley. A further reason we have for doing this is to show that in the three positions he, we think very correctly, assumes, and advances as the results of modern investigation and science, Dr. T. has been anticipated by Hebrew writers at an age almost as early as the introduction of Christianity.[‡] This we

^{*} Batra f. 58. b.

[†] Bechor. f. 44. b.

[‡] It may be known to the reader that there are two Talmuds in use among the Jews. The 1st, the *Talmood Yerushalmi* or Jerusalem Talmud, was compiled in the year 230, according to some in the year 200 of the Christian era. This, however, is not so much in use, and does not contain so many legal decisions as the 2nd, the *Talmood Babli* or Babylonian Talmud, completed about the year 500. It need scarcely

may see by comparing the Talmudic quotations above with Dr. Townley's three propositions.

The first Talmudic axiom quoted was, that "the main cause of all disease is blood," and we maintain that is to the eating of blood this remark refers. The observations of Dr. Townley will appear to the candid reader to be nothing more than illustration and commentary on these axioms, though doubtless involuntarily so on his part, for we may be permitted to suppose that the Doctor, without any imputation on his Rabbinical learning, which seems to be of no mean order, did not know, or perhaps did not recollect, these Talmudic passages. We say, then, that Dr. Townley observes—and *not* with reference to the first of the Talmudic axioms we have quoted, though we request the reader to compare; "the blood being highly *alkalescent* especially in hot climates, is subject to speedy putrefaction; and, consequently, that flesh will be most wholesome and best answer the purposes of life and health, from which the blood has been drained, and will preserve its suitability for food the longest.

Our second Talmudic quotation was, "the main cause of all disease is blood," Dr. Townley remarks: "2nd. Blood affords a very gross nutriment, and is very difficult of digestion, and in some cases it is actually dangerous to drink it: for if taken warm and in large quantities, it may prove fatal, particularly bull's blood, which was given, with this view, to criminals by the Greeks, "its extreme viscosity rendering it totally indigestible by the powers of the human stomach." Valerius Maximus (lib. v. c. 6.) ascribes the death of Themistocles to his having purposely drunk a bowl of ox blood during a sacrifice, in order to avoid subjecting his country, Greece, to the King of Persia. It is true, the blood of animals does not always produce similar effects, but this may be owing rather to the smallness of the quantity taken, than to its not being injurious in its nature, or its malignity may be partially counteracted by the other dietetic substances with which it may be eaten."

The third Talmudic axiom was, "Much blood, much scurvy". Dr. Townley says "3rd. Those nations which feed largely upon flesh, are observed to be remarkably subject to *scorbutic diseases*; and if physicians be right in ascribing such tendency to animal food in general when freely eaten, especially in the hotter climates, it must be acknowledged that the grosser and more indigestible juices of such food must have the greatest

be remarked that the Talmud contains traditions which were generally acknowledged by Jews, and were ancient even at the time of their compilation.

* Dr. A. Clarke's commentary on Levit. xvii. 11.—Michaelis's Commentaries on the Laws of Moses, vol. 3. art. 206, p. 252.—Revelation examined with Candour vol. 2. 23. Encyc. Perth., article *Blood*.

tendency to produce such injurious consequences, and blood as the grossest of all animal juices be the most inimical to health and soundness. * To abstain therefore from all meat, from which the blood has not been drained, from whatever cause the blood has been retained in the animal, whether purposely, by strangling or otherwise, must be much more conducive to health than by yielding to a luxurious and vitiated taste, and adopting a contrary practice.

3. *The effects of blood eating are shown to be physically bad by other authorities.* The Abbé Fleury (*Mœurs des Israélites*) says, the Hebrews “were forbidden to eat blood or fat, both are *hard of digestion* : and though strong working people, as the Israelites, might find less inconvenience from it than others, it was better to provide wholesome food for them, since it was a matter of option.” Dr. Townley says, “the divine Being enjoined that animals destined for food should be killed with the greatest possible despatch, their blood be poured upon the ground, and the eating of blood religiously avoided ; and still more deservedly prohibits such sanguinary food from *its baneful influence upon the dispositions* of those whose vitiated appetites or brutal superstitions led them to indulge in gross and bloody repasts.” For as has been remarked “all animals that feed upon blood, are observed to be much more *furious* than others. † Bryson (*Voyage*, p. 77.) tells us that the men by eating what they found raw, *became little better than cannibals*. ‡ Further illustration of this fact we think may be found in Alexander Henry’s *Travels through Canada and the Indian Territories*. In that work it is stated that “man-eating was then, and always had been, practised among the Indian nations, for the purpose of giving them courage to attack, (in other words *to shed blood*,) and resolution to die, (in other words *a brutish indifference to death*.” ¶ This extract (for which we are indebted to Priest’s *American Antiquities*,) shows us that *savages* at least could estimate the value of blood eating. That ultimately it may insidiously gain ground, and advance until men indeed *become little better than cannibals*, we think is shown in the case referred to by Baron Humboldt in his personal narrative, he says that “in Egypt” once, as our readers will please recollect, the centre of refinement, when the law would set its face against such a practice, here, “in the 13th century, five or six hundred years ago, the habit of eating human flesh pervaded all classes of society. Extraordinary snares were spread, for physicians

* Revelation examined with Candour,” *ut sup.*

† Delaney’s “Revelation examined with Candour,” vol. ii., p. 21.

‡ Fergus’s *Short Account of the Laws and Institutions of Moses*, p. 99, note. Dunfermline 1810, 8vo. c. 8. See also Marsham, *Chronicon*, sec ix, p. 185. Lipsia, 1676, 4to.

¶ *Medical Repository* vol. 14, pp. 261, 262.

in particular. They were called to attend persons who pretended to be sick, but who were only hungry, and it was not in order to be consulted, but to be devoured." Michaelis says, "drinking of blood is certainly not a becoming ceremony in religious worship. It is *not a very refined custom*, and if often repeated, it might probably *habituate a people to cruelty and make them unfeeling with regard to blood*; and certainly religion should not give, nor even have the appearance of giving, any such direction to the manners of a nation."*

Having thus seen that the practice of blood-eating is one by no means commendable, or conducive to *mens sana in corpore sano* we proceed now to detail the various requirements and enactments laid down in the Jewish ritual code—the Talmud, Maimonides and other rabbinical authorities—having reference to the slaughtering of animals, and abstinence from blood; since they will best show with what religious strictness and sedulous care Israelites are required to (and in fact do now really) exhibit to remove the possibility of their eating prohibited blood. We ask the reader's indulgence in that, hereby, we shall have to extend considerably our remarks on this one sanatory Institution of the Hebrews, but we think it right so to do, and shall, on other occasions when we may have to elaborate, inasmuch as in our introductory remarks we said that after due attention to the sacred text we should "offer such illustrations afforded both by Christian and Jewish writers as may be within our reach or memory, and necessary to do full justice to our subject." And since we consider that the enactments alluded to above should be noticed as being intimately connected therewith; and that to the inquiring English reader they would prove neither uninteresting nor unacceptable, we venture now to exhibit what have been thought by many to demonstrate the superstition of the rabbinical Jew, and the trifling of the Talmud, but which we honestly confess, we are blind enough not to perceive in any such light. And we think that even the scientific reader, whose religious convictions may be opposed to those of the people to whom these enactments are addressed, will candidly assert that they are by no means of a bad, but of a good, healthy tendency, and are not to be despised. Indeed, many authorities high in the scientific world have already so pronounced, as we may perhaps have occasion to show hereafter. At present we would proceed with the task immediately before us.

In the Mishna which is the text of the Talmud, there is a treatise called חולין *Cholin* i. e. of profane (slaughtering) thus styled in con-

* Michaelis's Commentaries on the Laws of Moses; vol. iii., p. 252.

tradistinction to that treatise which discourses of קדשים *Kadashim*, i. e. of sacred (slaughtering) the former, with which we have now to do, treating of the slaughtering of animals required for domestic or secular purposes—the latter, of those devoted to sacrifice. In our extracts from this Mishnic treatise, we shall avail ourselves of the translations and notes of the Rev. Messrs. D. A. De Sola, and Dr. M. J. Raphall, of Dr. Jost, and of the excellent Hebrew commentaries of R. Obadiah Bartenora, and *Tosephet Yom Tob* and also of the *Meloh Caph Nachat* appended to the Berlin edition of the Mishna, (A. M. 5593.)

The first chap. of the treatise *Cholin* treats of the persons qualified, the instruments used, and the mode and place of slaughtering. We shall add a few explanatory words within brackets. §1. All [who are well acquainted with the laws respecting slaughtering] are permitted to slaughter [animals allowed to be eaten,—no priest is required as in the case of sacrifices,] and their slaughtering is *casher*. [To convey what has been properly slaughtered, and may be lawfully eaten, we retain this rabbinical term, or use the English word “proper.”] Deaf and dumb or demented persons, or little [young] ones are, however, excepted; because they are liable to make mistakes in slaughtering, &c.* * * * [The appointment in Jewish communities of a Shochet, or qualified slaughterer is a consequence of the requirements of the Mishna, and where private individuals do not perform the functions of the Shochet, he becomes a salaried officer of the congregation. This is almost universally the case, since the due discharge of his duties requires much time, he having not only to see that the animal or fowl be slain so that the blood flow from it in a proper manner, but having carefully to *examine* the beasts to ascertain that their internal state and conformation be perfectly healthy ere he can pronounce them fit for food; but of this more hereafter. The second section of this chapter directs that the slaughtering shall be performed with sharp instruments only, prohibiting those which are at all blunt or jagged, “because these do not cut but strangle,” [and they therefore not only inflict great and unnecessary pain upon the animal, but prevent *the free flow of blood*, and consequently, as is known, *even affect the state of the flesh*. Testimony to the propriety and value of this enactment of the Mishna, and proof that it, as well as those presently noticed are good and well calculated to secure *wholesome, healthy meat*, more especially with reference to the flowing of the blood from the animal we find supplied not only by Dr. Townley, as quoted above, but by that high authority, the

* The asterisks denote the omission of passages we have considered not immediately connected with our subject.

celebrated Dr. Andrew Duncan, late Professor of Medical Jurisprudence in the University of Edinburgh. He says, "*The mode of killing has considerable effect on the flesh of the animal.* * * The common mode of killing animals in this kingdom is by striking them on the forehead with a pole-axe, and then cutting their throats to bleed them. But this method is cruel and not free from danger. The animal is not always brought down by the first blow, and the repetition is difficult and uncertain, and if the animal be not very well secured, accidents may happen. Lord Somerville* therefore endeavoured to introduce the method of pithing or laying cattle by dividing the spinal marrow above the origin of the phrenic nerves, as is commonly practised in Barbary and Spain, Portugal, Jamaica, and in some parts of England; and Mr. Jackson says that "the best method of killing a bullock is by the thrusting a sharp pointed knife into the spinal marrow when the bullock will immediately fall without a struggle; then cut the arteries above the heart.† Although the operation of pithing is not so difficult, but that it may after some practice be performed with tolerable certainty, and although Lord Somerville took a man with him to Portugal to be instructed in the method, and made it a condition that the prize cattle should be pithed instead of being knocked down, still *pithing is not becoming general in England.* This may be partly owing to prejudice; but we have been told that the flesh of the cattle killed in this way in Portugal is *very dark*, and *becomes soon putrid*, probably from the animal *not bleeding* well, in consequence of the action of the heart being interrupted before the vessels of the neck are divided. It therefore becomes *preferable to bleed the animal to death directly, as is practised by the Jewish butchers.* The Mosaic law so strictly prohibits the eating of blood that the Talmud contains a body of regulations concerning the killing of animals; and the Jews as a point of religion will not eat the flesh of any animal not killed by a butcher of their own persuasion. Their method is to tie all the four feet of the animal together, bring it to the ground, and turning its head back, to cut the throat at once down to the bone with a long, very sharp, but not pointed knife, dividing all the large vessels of the neck. In this way the blood is discharged quickly and completely. The effect is indeed said to be so very obvious, that some Christians will eat no meat but what has been killed by a Jew butcher." Dr. Duncan further remarks, "Domestic birds in general are killed in a very unskilful and barbarous manner," and after detailing those methods, his further remarks

* General Survey of the Agriculture of Shropshire. By Joseph Plymley, M. A. 8vo., London, 1808, p. 243.

† Reflections on the Commerce of the Mediterranean. By John Jackson, Esq., F. S. A., 8vo., London, 1804, p. 91.

tend to show that these laid down and required by the Mishna is the most merciful, and in every way the best. But for these details we must refer the reader to the learned writer himself.* We have made the above lengthy extract from him because it conveys our own convictions, and in language preferable to our own, since it furnishes the unbiassed testimony to the wisdom and principles of the directions for slaughtering given by the Mishna of one highly esteemed in the scientific world; one, also, who, if he have a religious leaning at all in what he writes, cannot certainly be suspected of its being towards the ritual of the Jews.] Founded upon the same reasons, and having the same object are the following five traditional rules which are to be strictly observed in killing cattle or fowl, or they become *Pasool*, i. e., unlawful to be used for food. In slaughtering there must not be 1st, *חַיָּה* i. e. *delay*—as when a person cuts a little of the throat of the animal, then stops, and cuts again, and continues in the same manner till the act of killing is completed. 2nd. *כַּוָּח* i. e. *pressure*,—when the cutting was effected by pressure only, without passing the knife to and fro on the animals throat; or cutting off the head or tubes by a single stroke, using the knife like a hatchet or sword. 3rd. *הַלְוָה* i. e. *concealment*,—when the knife was covered with any thing; for instance, if it was covered or hidden by the wool of the animal, or by a cloth, or that it was passed between the tubes, and the killing completed by cutting the tubes either upwards or downwards. 4th. *הַגְרָמָה* i. e. *deviation*,—when the cutting has been beyond the bounds or limits on the throat of the animal, and it was made either above or below these limits indicated by the Mishna. 5th. *קָרַח* i. e. *tearing*,—when the tubes of any of them had been forcibly torn away before the act of killing was completed. (For more detailed particulars the Hebrew reader is referred to the Talmud, Treatise *Cholin* p. 9., and Maimonides chap. iii. of *Hilchoth Shechitah*, in vol. ii. of *Yad Hachazakah*. Grounded upon these reason also are the immediately following directions in §3 and in the following Mishnie sections.] §4. An animal which was slaughtered by being cut at either side of the throat is *Cashér*. * * If an animal was cut from the neck downwards, [that is, if the incision was made on the top of the neck, through the vertebra before the knife reached the œsophagus and trachea,] it becomes unlawful for use. * * An animal which is cut below the throat is *Cashér*. * * Chapter ii., § 1. When one of the pipes [i. e. the trachea] has been cut through in killing fowl, and both [the trachea and œsophagus] in killing cattle they are *Cashér*, [but are only so when it has thus happened unpremeditatedly, for it is necessary to commence the act of slaughtering with the intention of cutting through both tubes. For

* See Encyclopædia Britannica Art. Food.

the purpose of securing a perfect flow of blood, the following remark of R. Yehudah is directed.] It is necessary that in killing fowl the veins at the sides of the throat should also be cut through. [With the same intent, come the concluding requirements of this section.] If but one half [of the trachea] is cut through in fowl, and one and a-half [*i. e.* the trachea, and half of the œsophagus] in cattle, it is unfit; but if the greater part of one tube is cut through in fowl and the greater part of the two in cattle it is Cashér.

(To be Continued.)

ART. XXX.—*Observations upon Infanticide.* By A. VON IFFLAND, M. D., M. R. C. S.

NEVER is the physician seen to greater advantage, nor of greater practical importance to society, than when his science becomes the intervening agency of protection to injured innocence. As it not unfrequently happens to the frail and erring, but erroneously accused mortal, to stand charged with the commission of the revolting and unnatural crime of destroying the fruits of her illicit passion, and for the conviction of which, the offended laws have decreed the forfeiture of her own life, the following case, which points out one source of error, may not be without interest to the profession, or utility to society.

I was drawn into these reflections seven years since, on reading in the 1st volume (August number) of the British American Journal of Medical and Physical Science, so ably edited by Dr. Archibald Hall, the case of a married woman, who, pregnant with her first child, had hardly seated herself upon the edge of a rather high chair, when the uterine contraction became suddenly so energetic, that before assistance could be afforded, the child was forcibly expelled and fell head-foremost on the floor, and was killed upon the spot! The case is related by Dr. James A. Sewell, under the head "*of source of error in supposed Infanticide.*"

It is written and commented upon under those feelings of benevolence which have at all times characterised that amiable and talented physician, and with a desire of supplying those deficiencies of facts, so important and interesting in a medico-legal point of view, and which, while advancing the higher purposes of science and humanity, never fail of justly elevating the character of the author.

In cases of infanticide, the important question upon which the charge of murder can be founded, rests entirely upon the cause of death. 1. It is established that the child may die during its birth or after. 2. In either of which, it may die from natural or violent causes. The violent

causes may have originated from accidental or criminal design. The last case only, involves the question of child murder. But when called before a Coroner's inquest, on the important responsibility of investigating this cause, we ought to endeavour to lay aside that feeling which often induces us to see a criminal in every one who happens to be accused, and to keep in mind the valuable principle of *Grotius*, "*prius est crimine quàm de reo inquirendum.*"

With a view of adding another case of unexpected seizure, (primiparens) with labour, and sudden expulsion of the child by the violent efforts of the uterus, I beg to relate the following :—

In the month of May last, I was hastily called to visit a young married woman, named Paquet, living in a back concession of this Parish, taken, as stated by her husband, suddenly ill, under very peculiar circumstances. On reaching the house, the patient informed me, that early in the morning, she was seized with violent colic pains, and a desire of evacuating her bowels, and for that purpose she had gone to a privy, (if it may be so called,) situated a short distance from the house, that while on the stool, a wide open place, the pains became so severe that she could not move, and nearly lost her senses ; that all on a sudden she felt something pressing heavily downwards, she gave one scream, (heard by her mother in the house,) and at the same time she felt something leaving the passage, and falling into the privy-hole ; the child's head, in falling, came in contact with a piece of wood projecting on the side of the privy, and produced great laceration of the scalp over the right parietal bone, but no fracture ; the cord, which, on measuring, was found to be nineteen inches long, was ruptured near its placental end ; the child, a full grown one, survived three or four hours.

This young woman was twenty-three years of age, of irreproachable character, and had been married only ten months, and on the morning in question, she was under the impression, as was also her mother, that she had upwards of two weeks to reach the time of her confinement.

This, then, is another case which suggests many important reflections in regard to the medical jurisprudence of infanticide, and, from the *possibility* of its occurrence in the unmarried state, it points out the great responsibility which is attached to the Coroner, if, in the vindication of justice, and the due protection of society, he fails to place before his jury such facts as are available through the agency of an experienced physician, and through whose proper information, respecting the phenomena which accompany birth, he may influence that jury in rendering an irreprehensible verdict. The following from Mr. Ollivier's *Annales d'Hygiène, &c.*, so intimately bears upon the above subject, and conveys so forcibly and impressively the integrity of position which the physician or surgeon

should assume in giving evidence in courts of justice, on subjects connected with medical jurisprudence, that I have presumed to quote it :—“*Lorsque la justice demande des lumières de la médecine, les explications de cel-ci doivent être aussi complètes que possible.* Un expert doit donc dire tout ce que la conscience lui inspire, quand ses observations sont d'ailleurs le résultat de l'examen attentif, qu'il a fait du sujet sur lequel on demande son opinion. Il est de son devoir de dire alors tout ce qu'il croit de nature à favoriser la découverte de la vérité : il aurait tort de borner ses réponses aux questions qui lui sont posées, s'il ne peut exprimer de la sorte toute sa pensée.

ART. XXXI.—Case of Saturnine Ptyalism. By H. HILL, M. R. C. S. L., Bytown, C. W.

THE following instance of a peculiar idiosyncrasy, or susceptibility of the constitution, to the effects of lead on the salivary apparatus, may prove interesting to the pharmacist as well as to the toxicologist. During the past spring, I was in attendance on a lady who was threatened with miscarriage about the eighth week of pregnancy, the symptoms were very slight at first, being confined to the smallest possible appearance of hæmorrhage, unattended with any pain or sense of weight in the pelvic region ; it consequently was thought, that by enjoying perfect rest in the horizontal position with the use of sulphuric acid and opium, that all unpleasant consequences would be avoided. After having kept the patient in bed for a fortnight, during which time there were occasionally the very slightest marks of hæmorrhage, one morning the sign of abortion became too evident to be any longer mistaken, or the expectation of its recurrence to be further delayed ; after a few hours the ovum became detached and came away, with considerable flooding at the time, and continueing for days and weeks afterwards. It was soon after the continuation of the hæmorrhage that I commenced to administer the acetate of lead in five grain doses with ergot of rye, about every four hours ; its effect on the flooding was marked, the discharge became decidedly lessened, but on the third day all the symptoms of mercurial salivation were evident, the gums were much swollen, the buccal and labial glands elevated and raised, the sublingual and submaxillary glands enlarged and painful, whilst the saliva was pouring from the mouth, possessing the characteristic foetor of ptyalism. I should have sought the explanation of these phenomena in an accidental admixture of Calomel or Corrosive Sublimate

in the specimen of lead, of which I was availing myself, had it not been for the circumstance, that, about two years previously, under precisely similar conditions with the same individual, like results had taken place; at that period, having been using portions of the same specimen of lead in several cases without any of these abnormal effects, I had no reason for suspecting its purity, but in the latter instance, I examined it with hydriodate of potassa, which only threw down the beautiful yellow precipitate of iodide of lead without any vestige of the salmon colour of iodide of mercury. So singular an effect of lead I have never before met with, either in practice or in works on *Materia Medica*, or *Toxicology*; *au contraire*, in Christison's work there is reference made to a paper published by a Mr. Daniell, in the *London Medical Repository*, advocating its use as a *Remedy* in mercurial salivation.

This unfortunate idiosyncrasy, existing in my patient, effectually excluded the continuance of the acetate, which was immediately followed up by a return of very distressing hæmorrhage, and was only finally controlled by the use of the tampon, which I look upon as a most effectual means of arresting uterine hæmorrhage, and one that is too seldom had recourse to from non-appreciation of its utility, or from prejudices founded on its unphilosophical effect of rather assisting to distend the uterus, than of allowing of its permanent contraction, and plugging up the vessels by coagulation of the blood.

ART. XXXII.—*A few observations on Dr. Howard's Lecture.* By MEDICUS.

WHENEVER a member of any profession assumes the position of a teacher in that profession, and makes his teachings patent to all, by their publication, he at once becomes amenable to the laws of criticism, and cannot, therefore, be displeased if his productions excite attention and remark. Modern clinical instruction, which comprises clinical lectures, conversations, and investigations, is eminently fitted to impart practical knowledge to the student of medicine. Books, no doubt, are of great value to him; but books can *never* make up the loss which he sustains by a neglect of bed-side instruction. It is only in the wards of an Hospital that disease can be *seen*, *heard* and *felt* by the student; it is there only that he can meet with, and observe it in its various phases, modifications and complications; it is there only that the higher powers of his mind, on the successful cultivation of which greatly depends his future success in life, can be fully exercised

in the diagnosis of disease. It is, therefore, a matter of no slight importance that the information and direction he receives from his clinical instructor should be as free of error as possible. This, I must offer as my excuse for the few remarks I intend to make.

I commenced the perusal of Dr. Howard's lecture with a feeling of satisfaction, that, in this city, a young physician had taken up the subject of heart disease; a subject which, notwithstanding the light that modern investigation has thrown upon it, is still in many parts obscure. Much has yet to be worked out in cardiac pathology—much in the symptoms and treatment of cardiac disease. It offers, therefore, to the ardent and persevering who are so fortunate as to occupy positions in our Hospital Staffs, a mine which by hard working may yield a fair return for the labour expended on it. I finished the perusal with feelings of more than disappointment. I expected, from the title of the paper, that, at least, "the cadaveric examination would have confirmed the diagnosis very closely." Whether such was the case or not, and whether the different steps of the process by which Dr. Howard arrived at his diagnosis, were such as in every respect merited the confidence of his hearers, are questions which will be more properly answered by a careful examination of the whole case as recorded by himself. The first part of the diagnosis was "*no disease of the aortic valves; possibly disease of the mitral, obstructive rather than regurgitant; or, perhaps, softening or weakness of the heart.*" The only portion of this clause verified by the subsequent *post mortem*, was "no disease of the aortic valves." The mitral valves were found quite healthy, and, instead of softening of the muscular structure of the organ, the walls of the ventricles were found "*firm and red.*" I must confess to a complete ignorance of any pathological condition of the heart, termed "weakness of the heart." I have read somewhat of cardiac pathology, but in no author that I have had access to, have I found any notice taken of a morbid state to which such a denomination has been given. I imagined, at first, that the term "weakness" was used synonymously with "softening," but, on reading further, it became evident that the terms were used to signify separate and distinct conditions:—for example, he says, "yet softening and weakness of the heart *are* also tolerably frequent"; clearly drawing a line of demarcation between the two, and although the following would appear to embody his views of the difference between "softening" and "weakness," and of the condition obtaining in weakness of the heart,—"*softening of the heart, whether from fatty degeneration, inflammation, blood disease or other cause; weakness of heart from engorgement of its cavities and polypus, all pro-*

duce many of the signs and symptoms observed in Churchill's case;" yet, on another page, he completely does away with this impression, by saying, "a largely dilated heart would be equally compatible with such signs and symptoms on the supposition that its walls were *weak*, or that they were gorged with blood from the obstruction to the pulmonary and general circulations."

Another circumstance, which I must take objection to, because of its tendency to perplex and mislead the student, is to be found in that portion of one of the above quotations which I have italicised, *viz*:—the placing of a recognized pathological condition of the heart among the causes of another condition. "Fatty degeneration of the heart" is treated of by all modern writers on heart disease in distinct terms, and is never associated, as a cause, with the pathological state treated of under the name of "softening."

There is one sign of polypus of the heart, of great diagnostic value, which Dr. Howard has entirely omitted to notice, and that is, *violent and continued vomiting, without any accompanying thirst, redness of tongue, pain in the epigastrium or pain on pressure*, occurring in connection with sudden dyspnœa, constant tossing of the arms, and throwing of the body from one side of the bed to the other—expression of extreme anguish, &c., &c.

The second part of the diagnosis was, "*enlarged heart, Dilatation of right ventricle, with slight tricuspid regurgitation, Left hydrothorax and pulmonary congestion.*"

The heart was enlarged. That the right ventricle was dilated, and that there was slight tricuspid regurgitation, however, admits of serious doubt. He makes the following record in his account of the autopsy:—"Heart *dilated* and hypertrophied," and singularly enough, follows it up, a few lines after, with the announcement, "*both ventricles closed by rigor mortis.*" Now, how to reconcile this plain contradiction otherwise than by supposing that, having fully made up his mind from the symptoms present during life, that dilatation existed, he felt himself bound, from his convictions, to assert its presence, notwithstanding the "closure" of the cavities. In his subsequent remarks on the case, he falls into the same error,—"*the cadaveric examination proved the heart to be generally dilated and hypertrophied; the right cavities so enlarged as to allow of tricuspid regurgitation whenever distended by the blood, which would naturally accumulate therein during severe exercise, or the dyspnœa under which the patient labored,*"—which latter ~~clause~~ means neither more nor than the right cavities were of normal dimensions, for what novice in physiological anatomy does not know of ~~the~~ "safety-valve action" of the tricuspid valves; an action which

allows regurgitation to take place, precisely under those conditions mentioned by Dr. Howard.

In speaking of enlarged jugular veins as being a sign of a dilated right cavity, if he had said, that the fact had been established by Lancisi, and corroborated by *nearly* every writer from his time, "and by myself," instead of saying, "as established by Dr. Blakiston, and corroborated by myself," it would have been more strictly correct. I have said *nearly* every writer, for there have been some distinguished dissidents. Corvisart, for instance, rejected it, because "it has been noticed in patients in whom the left cavities have been found to be dilated, and because the pulsation may be confounded with that of the carotids." His illustrious pupil, Laennec, however, speaks decidedly in favour of it:—"An habitual distension of the external jugular veins without sensible pulsations, has appeared to me the most constant and characteristic equivocal sign of dilatation of the right cavities of the heart."

There was an adherent pericardium which was not diagnosed.

It has not been my object, in these few remarks, to find fault with Dr. Howard for not making a perfect diagnosis. I am too conscious of our present imperfect knowledge of the various morbid conditions of the heart, and their declaratory signs and symptoms, to expect anything of the kind. What I object to is, the confidence with which he tells the student, that he has "had an opportunity of observing some of the difficulties that are frequently encountered at the bed-side, in ascertaining the exact pathological conditions existing in affections of the heart, and, at the same time, of witnessing how many of those difficulties may be overcome, and how *large* an amount of *positive and accurate* information may be obtained by the application of our present knowledge of cardiac diagnosis, when assisted and corrected by successive examinations," when the case would serve as an excellent illustration of failure in diagnosis, notwithstanding patient and repeated investigation.

If I might, in concluding, venture to give a hint to Dr. Howard, I would say, "carefully eschew for the future *elaborateness* in drawing up cases for the benefit of the student, and adopt, as much as possible, a pl
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REVIEWS AND BIBLIOGRAPHICAL NOTICES.

On the Fallacies of Homeopathy, and the imperfect statistical enquiries on which the results of that practice are estimated. BY C. H. F. ROUTH, M. D., M. R. C. S.

As the empirical practice called Homeopathy is now being introduced into some of the larger cities of Canada, we deem it our duty to lay before our readers the more important portions of recently published works, written in exposure of the fallacies of this specious system of medicine, as they come to hand.

It is true, indeed, that the regular profession of this Province have little cause, from present appearances, to apprehend any wide spread adoption by the people, of the absurdities of globulism. Canada, although geographically in juxtaposition to a country where hydra-headed Quackery reigns rampant, and rapidly multiplies its heads even without excision of a previously existing one ; where homeopathy, soon after its first promulgation, found a sure footing ; and where Homeopathic Colleges yearly send forth numbers of manufactured globulists to dispense sugar of milk pilules to every willing dupe, can boast of but four homeopathic practitioners. This, we take it, is highly creditable to the sound common sense of the community ; for, if adequate encouragement were given by the people to the system, there is not the slightest doubt but that, long ere this, homeopathic practitioners would have been as “ plenty as blackberries.”

It is a fact worthy of honourable mention, that out of a profession numbering upwards of eight hundred members in this Province, two only have been induced to place themselves beyond the recognition of the regular practitioner, by throwing up legitimate medicine and adopting this branch of irregular practice, and they had not obtained, nor were they likely ever to obtain, a position, of even respectable mediocrity, in the legitimate practice of medicine. How far the following remarks, taken from an able review of Homeopathy in the last number of the *British and Foreign Medico-Chirurgical Review*, are applicable to those two, we leave practitioners of older standing, and of longer residence in this city than ourselves to judge. “ They are not to us disinterested enquirers after truth, patient endurors of unmerited contumely, followers of a faith which the dictates of a deep conscientious conviction required them to adopt. They are rather men who follow their profession, and who suffer their pseudo-martyrdom for no higher or holier motive than the need to make money. Their motto is “ REM.” No sophistry, however elabo-

rate, no manifestation ; scientific research, however apparently profound ; no protestations of deep conviction, however loud, can blind the observer of their proceedings to the damning fact, that before they embraced homeopathy, they had no success, pecuniary or curative, in ordinary practice. Their failures in the former sense are patent to the world, in the latter are loudly proclaimed by themselves."

Dr. Routh has divided his pamphlet into three parts. In the first division he gives a definition of the system, and briefly, but satisfactorily, exposes the absurdity of the reasoning employed by the globulists, their amusing contradictions, their moral obliquity, in fact, their want of common honesty and perpetration of direct fraud in many cases. Take, for instance, the following as an example of moral obliquity and direct fraud.

"And others, however, go even further still, they combine Homeopathy with Allopathy, at the choice of the patient. It is now no longer among the less distinguished ; the heads of the homeopathic school adopt it. Professor Henderson authorizes the mixed practice, and his views are admitted by the *Journal of Homeopathy*. Occasionally, however, it becomes necessary to show that homeopathic medicines have really an effect, and this is especially useful with unbelievers. Our strongest active principles are put in a homeopathic pill or pilule and administered. It is owing to such treachery that the Duke of Cannizaro was killed by three homeopathic globules. The death of Mr. Horace Green, of New York, who swallowed in sport a number of homeopathic globules, is explained in the same way." (p. 10.)

Dr. Alfred Taylor* relates a case, in which the salts of morphia were surreptitiously administered in poisonous doses by a homeopath. Five years ago, there appeared in the *Kinderhook Sentinel* a notice of a coroner's inquest having been held in Stockport on the body of Martin Van Stickler, who, in jest, swallowed a number of homeopathic pills furnished to him by one Dr. Philip, a globulist. Shortly after swallowing the globules he was seized with symptoms of poisoning by strychnine, and in a few hours was a corpse. Dr. P., when sent for, refused to go, stating as his reason, that, if Stickler had taken the whole of the medicine, it was useless, as the case would inevitably terminate in death.

The jury returned that he came to his death *by taking an overdose of arsenic and strychnine pills*.

In the March number of this Journal (p.26) we copied from the Buffalo Medical Journal the record of a novel operation performed by Prof. F. H. Hamilton, for the restoration of the lip, in a case where extensive destruction of the lower jaw and face resulted, in a child of seven years of age, from the administration of homeopathic globules.

* Taylor on Poisons. p. 617.

Many other well authenticated cases, that have occurred at a distance, might be cited, but our space will not permit us to notice more than one additional instance, one which occurred in this city, which was, we have not the slightest doubt, conducted with all due secrecy, and consequently supposed to be destined never to see the light. We may state in the premises, that we are fully prepared to prove, whenever called upon, the truth of the particulars of this case. While Dr. Rosenstein was tickling the ears of the more credulous of the inhabitants of Montreal, with high wrought descriptions of the wonderful cures effected by homeopathic practice, and the impossibility of affecting a cure in disease, otherwise than by strict attention to the "universal law" *similia similibus curantur*, the remedies being administered in infinitesimal doses, he was *practising* in the following manner:—A gentleman suffering from Syphilitic nodes, placed himself under Dr. R.'s care, to be treated *homeopathically*. Instead, however, of giving the pilules, he wrote out the following prescription and desired him to get it made up at a druggist's. *R. Morph: Acet: gr. iss: Aquæ Dist: ℥ iv.* This was followed a short time after by *R. Olei Terebinth: Olei Sabinæ aa ℥ iii: Tinct: Opii ℥ ii: Decoct: Sarzæ ℥ iii.* The directions for taking them were given verbally. This he denominated the "*anodyne preparatory treatment*." The next prescription was *R. Pot: Iod: gr. xv: Aquæ Dest: ℥ viii.* one ounce to be taken every fourth hour. Leeches were to be applied in the vicinity of the painful swellings, and subsequently the following ointment was to be applied to their surface. *R. Pot: Iod: ℥ iss: Opii ℥ ii: Axungiæ ℥ i.* The Iodide of potassium was gradually increased in the mixture until the patient took fifteen grains during the day. A friend, to whom the prescriptions were given, expressed his surprise to Dr. R. that he should adopt such treatment. "*The truth is,*" was the Quack's reply, "*some diseases cannot be cured if we stick to pure Homeopathy.*"

There are three things indisputably proved by the foregoing cases: 1st. *Poisonous doses of the active principles of medicines may be administered in a few homeopathic globules.* 2nd. *Homeopaths have not scrupled to avail themselves of this circumstance, for the purpose of fraudulently administering active remedies.* 3rd. *Homeopaths do not hesitate in violating the fundamental principles of their system, by having recourse to orthodox treatment in certain diseases.*

We confess to a genuine feeling of respect for the man, who, conscientiously and with singleness of purpose, adopts a system of treatment, and consistently carries it out, even although the principles, on which such treatment is based, are to others palpably erroneous. We can look without positive disgust on the bold and sturdy quack, who, while

conscious of the falsity of his assertions, pursues his course without deviating in the slightest to the right or left. But we regard with feelings of unmitigated loathing and contempt the man, who, actuated by sordid motives, is guilty of the despicable scoundrelism of denouncing in unmeasured terms the regular system of medicine, and all who practise it, professing at the same time exclusive attachment to a system of a most opposite character, and yet, when occasion demands, throws his beautiful theories to the winds, and covertly has recourse to the treatment he denounces.

Most of our readers must have had their attention drawn to the *pæan* of victory which arose from the ranks of the homeopathists, when, on the discovery of the magnetoscope, experiments were instituted by some of their leading men to ascertain if infinitesimal quantities of matter really produced any effect on the organism. Wonderful, indeed, was the disturbance which a decillionth of a grain caused, of the animal magnetism. Here was a proof, then, which the regular profession must succumb to. The magnetoscope could not utter a falsehood, and it spoke absolutely in favour of globulism. Many who firmly believed they were practising a lie, now, astonished beyond measure at finding themselves accidentally in a path so strange to them as the way of truth, increased their arrogant boasting, spoke loudly of the proof this wonderful instrument afforded of the truth of their science, (save the mark!) and launched out double the ordinary amount of abuse on the heads of those who were "so far behind the times" as to doubt the results of the experiments. Non-professional papers in London and New York had elaborate "leaders" on the subject, which were copied by Montreal papers, and in which the thing was made so plain, no man of ordinary intelligence could indulge in the slightest scepticism. What a pity it is, that all those high hopes should have lately "melted into air, thin air"! But it is not the first time that precipitancy in forming conclusions has brought experimenters to humiliating recantation and exposure.

"The last argument used in favour of the efficacy of infinitesimal doses is connected with the discovery of the magnetoscope. By this we were triumphantly informed, that infinitesimal doses, a long way beyond the *Ultima Thule* of homeopathic arithmeticians, the decillionth could be detected, and were found to produce exactly the same effect on the magnetic currents as the same medicine in its grosser preparations. Here was indeed a discovery, and one which could not fail to stagger the most incredulous; but, *O miserabile dictu!* Dr. Madden has now recanted! He sinks beneath the mighty arguments of "J. H."* Dr. Madden himself now admits, in a letter published in the same

* Homeopathic Times, Nov. 8.

Journal, "that he fears he is bound to conclude that Mr. Rutter's magnetoscope in its present form *is not applicable to experiments with homeopathic doses, the motions produced being the result of every slight motion of the operator's hands.*" What a falling off is here! It may be wrong to crow over a fallen foe; I shall, therefore, rest satisfied, in instancing this *mauvais pas* on the part of homeopathic professors, as another proof of their tendency to universalize from a few non-conclusive and hasty experiments." (p. 16).

In the second and third parts, Dr. Routh enters into a critical examination of the Statistics published by the Homeopathic Hospitals. From a residence of several years in Vienna he was enabled to observe the treatment adopted in, and make himself acquainted with, the nature of the cases admitted into Fleischmann's Hospital. This was absolutely necessary in estimating the value of the Statistics published by that Hospital. "Statistical tables," says a writer on the subject, "may lead, and have led, to incorrect notions, when the bare results are considered, without reference to the causes and accompanying circumstances, but, when used with due caution, they are of the highest importance." To form a correct judgment of the importance of any course of treatment pursued at a Hospital, as compared with that adopted at any other, more is to be taken into consideration than the mere comparison of the average rate of mortality, made out from the returns of such Hospitals. In the first place, the previous condition in life of the majority of the patients will influence very materially the ratio of deaths. If the greater number admitted into one institution are persons belonging to the lowest ranks, of seriously impaired constitutions, from a familiarization with dissipation, poverty, filth and misery; and the other institution receives those only who belong to a better class, and who have previously led temperate lives, and have had sufficient clothing and food, it would be obviously unfair, putting aside entirely the consideration of treatment, to expect the same average amount of recoveries out of a certain number of cases admitted into each. Dr. Routh notices this circumstance.

"The delusion of homeopathy has only reached the upper and better class, and not the very lower orders. These debilitated, oftentimes by excess, privation, exposure, &c., are at all times the more obnoxious to disease, and less able to resist it when once it has attacked them. The acute cases, in addition, will be sure to come to us, at least the great majority of such cases. In addition, I can state from personal observation in regard to Dr. Fleischmann's Hospital (homeopathic) that the patients are not the very poorest, but the better class of working mechanics and manufacturers. Those in the General

Hospital are oftentimes the most wretched objects living. My observation, I am happy to find, is fully confirmed by Dr. Gluck, who for a considerable time attended the practice of Fleischmann's Hospital in Vienna." (p. 43)

It is easy to conceive, again, how much an average could be affected by one party having recourse to a selection of cases, that is, admitting by preference those suffering from ailments distinguished for mildness and non-fatality, and rejecting many afflicted with *bonâ fide* dangerous or incurable disease.

"When, for instance, we find in Fleischmann's Hospital, between 1835-43, the following simple cases (which cannot include the more severe, which are referred to separate heads):—Hysteria, 6; hypochondriasis, 3; spasms, 23; spasms of bladder, chest and stomach, 37; amenorrhœa, 10; chlorosis, 80; rheumatic and gout affections of the chest, 47; catamenial colic, 15; headaches, 79; hoarseness, 6; shingles, 20; swelling of cheeks, 29; vomiting, 23; simple cough, 9; dyspepsia, 172; catarrh, 43; chorea, 4; &c., &c., total 662, of simple diseases, seldom fatal, not to include 270 very mild surgical cases and such diseases as tonsillitis, &c., it is very difficult to believe the cases are not selected. In 1842-43, in the Leipsic Hospital (homeopathic) we have 23 cases of odontalgia, *i. e.* simple toothache, admitted out of 418 cases altogether." (p. 39.)

In Fleischmann's Hospital, between the years 1835-43, the proportion of cases of amenorrhœa chlorosis and headaches to all cases admitted, was 22 per 1000, and in Leipsic 29 per 1000. In the Glasgow Infirmary, it was only 4 per 1000, and in the General Hospital at Vienna, in the two years 1848-9, it was 10.9 per 1000. There were admitted of the incurable disease, pulmonary phthisis, into the

				per cent.
" Glasgow Infirmary, 4 years	481			4.0
General Hospital, Vienna, out of 51,709 cases	366			4.5
Dresden 1821-43	" 27,067	" 1854		6.8
Strazburg, 1841 (Forget statistics)	1,324	" 128		9.6
<i>In the Homeopathic Hospitals.</i>				
Fleischmann's	6,501	" 98		1.5
Leipsic 1841-8	6,507	" 101		1.6"

We are of opinion, that our readers will agree with Dr. Routh, in regarding the foregoing facts as containing positive proof of the homeopaths having recourse to a selection from the cases which present themselves for admission into their hospitals.

The extremes of age are notoriously incapable of resisting disease. Under 10 and over 40, the *vis vitæ*, as a general rule, readily yields to an

attack of illness. In the former case, development and growth are rapidly proceeding; the ordinary demand on the circulatory and nervous systems is very great. Any powerful additional stimulus, therefore, rapidly exhausts the nervous excitability, seriously deranges the various functions through the circulation, arrests development and growth, and soon terminates, if relief be not obtained, in the death of the individual. In the latter, a gradual decay has commenced, which would of itself eventually terminate in complete dissolution, and which may be very much hastened by many causes, particularly by disease. The circulation becomes languid; the functions gradually lose their activity and become almost torpid; there is less reactive power of the system.

Dr. Routh gives a table, (p. 45) in which he shews that the number, per cent., of cases admitted into the Homeopathic Hospitals is, under 10 years of age, 11.2; between 10 and 40, 73.7; and above 40, 15.1 per cent. Nearly three-fourths of all the cases being between the years, which mark the boundaries of the time when the body is most capable of resisting disease. Here, again, is evidence of careful selection, on the part of the Homeopaths, for the purpose of showing a small rate of mortality.

Dr. Routh, in the second section of the third part, takes up the subject of "mortality on particular diseases," and proves conclusively, from their own returns, that, under the heads of such serious inflammatory complaints as pneumonia, pleuritis and peritonitis, they include many diseases of a neuralgic character; and, indeed, have recourse to various disgraceful means, with the view of shewing that their treatment is even more successful in those diseases, than that pursued by the regular profession. "Thus in the Leipsic (1841-2) returns, we have 7 cases of peritonitis *muscularis*; in 1840-1, 1 case of peritonitis *muscularis*, another of pleuritis *muscularis* (Statklinik); again the same year, 3 cases *muscular peritonitis* and *muscular pleuritis*, &c., in their cases of pneumonia, instances of *pneumonia-hypostatica* are recorded. This improper nomenclature it is clear, as including diseases perfectly different and in no ways fatal, must materially affect the cypher of mortality when a comparison is made for special diseases." (p. 48.)

In conclusion, Dr. Routh is deservedly entitled to the thanks of every member of the medical profession, for his able *exposé* of the "crooked statistics" of the Homeopathic Hospitals. His pamphlet is a *desideratum* which the opponents of this branch of quackery long wanted. Want of positive and reliable information on the subject, placed the defender of medical truth in a disadvantageous position; for when all other argument failed, the Homeopath was sure to bring forward his "statistics," and triumphantly point to the small cypher of mortality which they exhibited.

Elements of Chemistry. By THOMAS GRAHAM, F. R. S., Professor of Chemistry in University College, London, &c. Second American Edition from an entirely revised, &c., and greatly enlarged English Edition. Edited with notes by ROBERT BRIDGES, M. D., Professor of Chemistry in the Philadelphia Medical College of Pharmacy, &c. Part 1. Blanchard and Lea, Phil., 1852.

THIS portion of the above treatise begins with a short but clear account of the most important of the laws of heat. Having merely glanced at the mechanical properties of light, upon which, in our opinion, the author is altogether too brief and condensed, the important subject of polarised light, for instance, being considered in twenty-two lines, he discusses at considerable length the various topics appertaining to what may be called Chemical Philosophy, viz, chemical nomenclature and notation, the laws of combination, isomorphism, chemical affinity and polarity, and the like. The metalloids and their combinations with each other are then described in a very full yet practical manner, and the most approved methods of obtaining the elements and their compounds explained, and illustrated by numerous well executed wood-cuts of the necessary apparatus. The last chapter is devoted to general observations upon the metals, and a particular description of the metallic bases of the alkalies, alkaline earths, and earths proper. In connexion with each metal is found an account of its various compounds with the salt-radicals oxygen, chlorine, iodine, cyanogen, &c., and of the most important salts resulting from the union of its oxide or oxides with the mineral acids, a plan which secures to the student a connected and consecutive account of a metal and all its important chemical combinations.

Being thus occupied with the *principles* of the science, and with that department of chemistry, the *inorganic*, which has been less enlarged and investigated for the past few years than the sister or *organic* department, it can be scarcely expected to contain many novelties, or facts not embodied in the other excellent and recent works upon the same subject already in our hands; and such is actually the case. Hence in our further remarks upon the book before us, we will simply point out some of the passages, opinions, and subjects, that we noted as worthy of comment or mention, when perusing it.

It will be remembered that the late Dr. Prout suggested, and ably supported, the hypothesis that the equivalents of all the elements are simple even multiples of the equivalent of hydrogen, which if regarded as all the others will be whole numbers. Now as this opinion was also maintained by Dr. Thomson and others, and seemed to be sustained by ex-

periment, and was regarded by Herschel* as involving "a class of phenomena in physical science of a remote and singular kind, and of a very high and refined order, which could never become known but in an advanced state of science," it enlisted in its investigation many of those aspiring minds, who, not content to be the mere inheritors of bequeathed opinions, explore for themselves nature's storehouses of knowledge, and seek in their turn to add new particles of truth to the general mass. From their labours, "it appears to be definitely settled," to use the words of Professor Graham, "that the equivalents of the elements are not, without exception, multiples of the equivalent of hydrogen. The number for chlorine, 35.5, is conclusive against that hypothesis." But the *principle* of the idea conceived by the profound Prout seems to be quite established, for our author proceeds to say: "At the same time, the accurate determinations of the equivalents of chlorine, silver, and potassium, by Mauminé, lend positive support to the opinion that these and all other equivalents are multiples of *half* the equivalent of hydrogen." p. 118.

When M.M. Dulong & Petit discovered that equivalent or atomic weights of many elements have the same capacity for heat, they drew the general conclusion that *all* simple atoms have the same capacity for heat, and that those atomic weights which are inconsistent with that supposition ought to be altered and accommodated to it. Could such a remarkable relation be proved to exist between the chemical and the molecular constitution of bodies many important consequences might arise from it. Among others, the specific heat of a body would afford the means of determining its atomic weight. However, more extended observation has led Professor Graham and others to conclude "that elementary atoms have *not* necessarily the *same* capacity for heat, although a *simple relation* appears *always to exist* between their capacities." Thus while the specific heat of an atom of the following bodies, lead, tin, copper, nickel, cobalt, iron, sulphur, &c., is 1, that of arsenic and silver is 2, of phosphorus 4, of iodine $4\frac{1}{2}$, and so on. It may be as well to state that the specific heat of an atom of a body, or its "atomic heat" as it is called by Regnault, who has lately added much to our information on this subject, is obtained by multiplying the observed specific heat of the body by its equivalent number. From the researches of Neumann, Avogadro and Regnault, it appears that a *similar relation* exists between the *specific heat* and the *equivalent numbers* of compound bodies of *analogous composition* as obtains among the elementary. Our author, after illustrating this fact by 2 classes of salts, the carbonates and

* Discourse on Natural Philosophy, by J. F. W. Herschel, p. 307.

sulphates, observes: "Identity in capacity for heat is, therefore, to be looked for in compound atoms of the same nature, and which *closely agree* in their chemical relations like the numbers of each group, but not between compound atoms which are *differently* constituted."—p. 123. Mr. Regnault has announced the following general law in connexion with this subject: "In all compound bodies of the same atomic composition and similar chemical constitution, the specific heats are in the inverse proportion of the atomic weights."

The author's remarks upon combining proportions are not as clear and simple, nor their meaning as palpable as those of other writers upon the same subject; that is, a novice would not as readily seize the sense and appreciate the relative importance of the laws of combination as by perusing Turner's or Fownes' statement of those laws. But the observations on the relation between the atomic weights and volumes of bodies in the gaseous state are truly excellent, and a long and valuable table is given showing the number of volumes in an equivalent of a large number of gases and vapours, and their specific gravity as compared with air, oxygen and hydrogen respectively as unity.

In the 4th section of the 3rd chapter is a brief but able exposition of Mitscherlich's great discovery, that the same number of atoms combined in the same way produce the same crystalline form. Following out this theory, the author has arranged a large majority of the elements in 10 isomorphous groups, and extended the list of isomorphous bodies much further than is done in other English works; indeed the only elementary substances not included in this classification, and whose isomorphous relations have not been traced out, are carbon, boron silicon, mercury, cerium, didymium, lanthanum, lithium, rhodium, ruthenium, palladium, and uranium, and even of these, didymium, cerium and lanthanum, rhodium and ruthenium may probably have their places assigned them. The members of these several groups are so linked together by the isomorphism of one or more of their compounds, that it is probable that a large proportion, if not the whole of the elementary bodies, are isomorphous—indeed Professor Graham thinks "the tendency of discovery is to bring all the elements into one class, either as isomorphous atom to atom, or with the relation to the others which sodium, chlorine, and arsenic exhibit."

Having pointed out the fact that isomorphism is the surest criterion of similarity of composition which we possess, and that it is generally an indication of many common properties besides external form, and is a feature which indicates the closest relationship between bodies; and having considered the chief objections which have been urged against the principles of this truly sublime generalization, he makes the follow-

ing important observations: "Admitting that isomorphism is a certain proof of similarity of atomic constitution within a class of elements and their compounds, it may still be doubted whether the relation of the atom to crystalline form is the same without modification, throughout the whole series of the elements, or whether all atoms agree exactly in this or any other physical character.

Crystalline form and the isomorphous relation may prove not to be a reflection of atomic constitution, or immediately and necessarily connected with it, but to arise from some secondary property of bodies, such as their relation to heat, in which a simple atom may occasionally resemble a compound body, as we find sulphur isomorphous in one of its forms with bisulphate of potassa, while we find another simple atom, potassium, isomorphous through a long series of compounds with the group of five atoms which constitute ammonium. The occurrence of dimorphism also, both in simple and compound bodies, gives to crystalline form a less fundamental character.

Is it probable that sulphur and carbonate of lime could be made to appear in sets of crystals which are wholly unlike, merely by a slight change of temperature, if form were the consequence of an invariable atomic constitution? Crystalline form, then, may possibly depend upon some, at present unknown, property of bodies, which may have a frequent and general, but certainly not an invariable relation to their atomic constitution. There may be nothing truly inconsistent with the principles of isomorphism in one atom of a certain class of elements having the same crystallographic value as two atoms of another class, the relation which has been assumed to exist between the sodium chlorine and phosphorus classes, and the others, particularly when the classes stand apart, and differ in their properties from all the others, as those of sodium and chlorine do."—pp. 149–150.

The subject of *Allotropism* is also ably handled by the author. It is well known to chemists that the same compound or simple body may possess different properties under different circumstances—thus phosphorus in its ordinary state is colourless, very inflammable, luminous in the dark if exposed to air, and slowly passes by oxidation into a deliquescent acid; but when exposed for some time to a heat near its boiling point, air being excluded, it undergoes a striking change of properties; it becomes solid, brownish-red, less combustible, and unalterable in air—before it was soluble in bisulphuret of carbon and poisonous, now it is insoluble in that liquid and innocuous to the animal system. We might cite many other examples of similar transformations, but this will suffice. What is the cause of these differences of property in the same body? Hitherto this question has been unanswered, even

Liebig, in his work of 1851, attempts no solution of it. But our author has advanced the following ingenious and plausible explanation, which we shall attempt to compress into a few words. He supposes that *heat* is combined in definite proportions with bodies—that is, that it is as really and essentially a constituent of them as their ponderable elements—and that any change in the amount of their combined heat is attended with a change of properties—in obedience to the great physical law “that no change of properties can occur without change of composition.” The only objection to this hypothesis that occurs to us, is its regarding heat as a material substance in opposition to the more generally received undulatory theory of heat; but this is not a sufficient reason for its rejection, as many of the properties of heat are as explicable, if not, more so, on the molecular as on the undulatory theory.

In the section on the constitution of salts, we find a very lucid statement of a theory, which, conceived long ago in the comprehensive mind of Davy, has, under the fostering care of Dulong, Liebig, Dumas, Clark, Frémy and others, passed scathlessly through the period of infancy, and now almost claims the authority amongst modern philosophers of an established opinion. We allude to the theory which regards all salts as being compounds, analogous in their constitution to chloride of sodium; thus sulphate of soda, which, upon the old view, consists of soda (NaO) and sulphuric acid (SO_3), is composed agreeably to the new, of sodium (Na) and the salt radical sulphion (SO_4) and is called the sulphionide of sodium; so the sulphate of water (oil of vitriol) formerly stated to consist of water (HO) and sulphuric acid (SO_3), by the binary hypothesis is composed of hydrogen (H) and sulphion (SO_4) and called the sulphionide of hydrogen:—

Old view.	New view.
Sulphate of Soda..... NaO, SO_3	Chloride of Sodium..... Na, Cl .
Sulphate of Water..... HO, SO_3	Sulphionide of Sodium..... Na, SO_4 .
	Sulphionide of Hydrogen..... H, SO_4 .

Now though our author, in common with most authorities, evidently inclines to this beautiful and simple view of the constitution of salts and hydracids, he candidly states the arguments *pro* and *con* which affect it, and admits that this theory, like the older one rests on no demonstrative evidence, “that they are both hypotheses, and are both capable of explaining all the phenomena of the salts.” However, the American editor, Dr. Bridges, assigns several additional and very sensible objections to the salt-radical theory, which must be met before it can be substituted for its older rival.

Before concluding this glance at some of the peculiarities of this edition of Graham's Chemistry, which is indeed worthy of the numer-

ous commendations pronounced upon it by such men as Hare, Mitchell, Bache, &c., we would not silently pass over the excellent style as regards paper, type and illustration in which the publishers have produced it—the book having quite the appearance of one of Churchill's best. We hope soon to receive the second part, which no doubt will be peculiarly valuable, as it will contain that rapidly extending and exceedingly interesting department of the science—the *Organic*—in which both the author and editor will have full scope for the exercise of their judgment and industry. R. P. H.

The Principles and Practice of Surgery. BY WILLIAM PIRRIE, F. R. S. E., Regius Professor of Surgery in the Marischal College and University of Aberdeen; Surgeon to the Royal Infirmary, &c., Edited with additions, by JOHN NEILL, M. D., &c. Philadelphia, Blanchard and Lea 1852. B. Dawson, Agent, Montreal.

WE have received the work, of which the above is the title, too late to lay an abstract of its contents before our readers in this number, but from what we have already perused of it, we are disposed to form a very high estimate of Professor Pirrie's production, which appears to give a condensed and accurate view of Surgery up to the present day, but on this subject we shall speak more fully in our next issue.

SCIENTIFIC INTELLIGENCE.

SURGERY.

On the cancerous degeneration of warty excrescences, and their treatment. By RICHARD G. H. BUTCHER, F. R. C. S. I., Examiner on Anatomy and Physiology in the Royal College of Surgeons in Ireland, Surgeon to Mercer's Hospital, &c., &c., &c.

MR. PRESIDENT,—On a former occasion I had the honour of bringing before the notice of this Society (the Surgical) a paper on the relationship that is found to subsist between cancer and fungus hæmatodes; and illustrated this alliance by preparations and specimens—1stly, when the diseases coexisted together; 2ndly, where the one was consecutive to, or replaced by, the other; and 3rdly, where the two manifestations of disease were tinuous in the same tumour.

These facts are borne testimony to and established by the investigations of Langstaff (Med. Chir. Trans., vol. ix.) Cruveilhier (Anat. Pathol., livr. xxiii., Explanation of Plates, 5 and 6,) and others.

The observations which I now wish to lay before the profession are in reference to the cancerous degeneration of warty excrescences—an

association which I do not think has met with all the careful attention from writers to which it is entitled. Entitled on two grounds—1st, from the frequency of the one as a sequence to the other; and 2ndly, from the inveteracy of the connexion when once established.

The following cases will afford exposition of the various changes brought about, from the apparently innocent verruca to the cancerous ulcer, and this again to the contamination of the system and the springing up of encephaloid disease. To illustrate still further this subject, I shall lay before the Society numerous casts and drawings, accurate representations of the respective changes as they were effected in each individual case, and shall conclude with a few practical deductions from the premises obtained.

Case 1.—Anne Sullivan, aged 52, applied to me for relief, in May, 1850, being then suffering severely from a large, painful, ulcerated tumour over the right eye. The history which she gave goes to prove that a wart about the size of a pea existed above the eyebrow ever since she was a child; that eleven months previous to her seeking my advice, it became painful and itchy; that she frequently tried to pick it away in little pieces, and often pulled long shreds out of it, the separation of which was always attended with sharp pain, lasting frequently for a lengthened period after, and usually with a smart flow of blood. About this time, too, the bulk of the swelling began rapidly to increase, with a red margin round it, and soon its appearance was altered in every respect from the original condition; the warty excrescence was cast off, and a small ulcerated surface, about the size of a shilling, lay exposed, which was elevated, hard, and circumscribed; yielding a thin yellowish discharge, and characterised by persistent pain of a pricking kind, subject at different times to various degrees of intensity. Day after day the tumour continued to enlarge, spreading its base by the accession of fresh nodules, which never rose to any greater height than half an inch above the surrounding healthy parts; the integuments thus appeared to ulcerate around, the destroyed part being supplanted with firm elevations, which, in their turn, coalesced, became convex, and in this way preserving the nodulated character of the entire surface. Thus the base extended widely in all directions—upwards on the forehead, inwards and beyond the mesial line, externally towards the temple, and down upon the cheek, and inferiorly so as to involve and depress the upper lid, and compromise vision in the right eye. The extent of ulcerated surface measured round its circumference ten inches. This amount of disease, then, was hurried into existence in the incredibly short period of eleven months. The character of the sore was peculiarly cancerous, the surface being nodulated, hard, and firm almost as cartilage, yielding a dis-

charge thin, yellowish, and watery; profuse in quantity, and emitting the peculiar odour so pathognomonic, and readily recognized by the surgeon accustomed to meet with this form of disease. Eight months after the commencement of the disease in the forehead, a tumour began to form in the upper part of the parotidean region; it gradually came on, at first attended with most severe darting pain through the ear, up along the side of the head, and forwards towards the face, and thus averting sleep for nights, even before there was any appreciable swelling. At this time, the pain, she states, to have been most agonizing; but it gradually declined as the bulk of the tumour was augmented. The size of this secondary growth obtains in magnitude about that of a split orange, and from its osseous boundaries its outline is not regular; it is also somewhat compressed transversely about its centre, and the upper part is more of an ovoid, while the lower portion is lobulated, and spread out. This cast, taken from the patient, most faithfully represents the appearances of the primary and secondary formations, and the colouration of each has been very carefully preserved. From a careful consideration of the phenomena attendant on this tumour, the rapidity of its growth, the character of the pain, the elastic sensation elicited by the touch, the colour of its surface, I concluded it was of encephaloid formation, and referred it to that class. With anxiety I watched this creature for some time, and in about five weeks after the cast was taken, the most prominent part gave way, and a fungus shot out, never attaining beyond the size of a large fig, and emitting from its centre, at intervals of a few days, repeated arterial hæmorrhages; some of them to the extent of several ounces. She struggled on in this way for two months, when she died from the debility consequent upon those frequent losses, and I regret to say I could not obtain any dissection of the body. I examined the structure of the original tumour several times with the aid of the micro-

ed its cancerous nature. A fine made up of fibrous tissue, having numerous nucleated cells; many acid had no other effect than that nuclei at the expense of almost the projecting a piece of the tumour to from it yielding an abundance of tion, and by the addition of acetic sult. Numerous granular bodies

opic appearances of the primary the fibrous tissue, cells, and granu-
The next point to be cleared up

in this case was, carefully to ascertain the nature of the secondary formation, the tumour behind the jaw, and to trace out the affinity between it and the antecedent true scirrhus by microscopic examination. After the tumour had burst and the fungus shot out, I introduced a grooved needle into its structure about an inch deep, then rotated it between the finger and thumb, and on withdrawing it the groove was loaded with the morbid product. This was not uniformly of the same consistence; some parts were harder than others. On placing a small portion of it under the microscope, every atom absolutely teemed with a profusion of nucleated cells, supported with the most delicate filamentous tissue. On examining some particles firmer than others, the cells were much the same, the only difference being in the compression of the cells; while those of the softer portions approximated more closely to a sphere. There were no caudate corpuscles present in this specimen.

Here is a drawing of the appearance of the cells, as represented under the same power as that used in the first picture.

Case 2.—Jane Murphy, aged 70, a healthy-looking country woman, who had been mother of ten children, consulted me in January, 1849, for a small tumour situated beneath her chin in the mesial line. She mentioned that a wart had been there from childhood, but that within the last four months it had lost its form, the irregular surface becoming smooth, its size larger, and extremely painful. She had been in the habit of frequently pressing the tumour, endeavouring to allay the pain, which often induced it to bleed, and then the annoyance in a measure subsided. When I first saw this patient, the tumour was about the size of a marble, smooth and polished on the surface, with a semitransparency over it, of stony hardness and quite moveable. Taking these features into consideration, together with the characteristic pain, always of a lancinating nature, the altered aspect of the part, and the period of life at which it was brought about, I was led to the inference of malignant degeneration being set up in this change, and urged its immediate removal. Coexisting with this suspicious tubercle, there was a warty growth, larger than a pea, a little above the chin, and to the left side. This, she said, also existed from infancy, never gave her any uneasiness, and exactly resembled the one beneath the chin, previous to the alteration above noticed. I removed the tumour beneath the chin in January, 1849, by two elliptical incisions, their long axis from above downwards cutting far wide of the diseased structure, and deeper by several lines of the bed of the tumour. The wound inflicted readily admitted of being brought together from side to side, and the edges retained so by two fine needles and the twisted suture, compresses were placed beneath the ends of each needle with a double object, to bear off any undue pressure and to act as on the

principle of the quill suture in supporting the lips of the wound at their very deepest line in contact, and thus taking the strain off the needles. So effectual was the support and apposition afforded that union by the first intention was constrained, almost through its entire track, the lower part only suppurating. In ten days after being cut, the wound was altogether healed, and the patient went to the country to her friends. Previous to her going home, I urged the removal of the wart above the chin, but to no effect ; she would not submit to have it done. During nine months after the operation, she remained free from disease, and satisfied that a cure had been effected. About the end of this time, the wart, which had been permitted to remain, began to spread and get painful. The cicatrix resulting from the former operation became tender, tumid, and ultimately gave way by an ulcerated fissure, which rapidly grew wider, yielding a profuse ichorous discharge.

The destructive action progressed for about a fortnight, when a fungous growth spread around the sulcus formed in the first instance, assuming the shape of a mushroom and the size of a crown-piece, its margin being turned over so as to rest upon the sound skin. She came up to town again for my advice, and I declined interfering by operation ; the grounds of objection being chiefly founded on the presence of a deep sinus leading backwards towards the line of lymphatics, parallel and beneath the anterior margin of the sterno-mastoid muscle. Again, the root of the disease was struck so deep, and the width of the contaminating base so widely spread, that even the most expert operator could not be satisfied that the entire was removed. Palliatives were again ordered, and she returned to the country. For many months the disease very slowly increased, but the warty excrescence was very considerably augmented, its surface having ulcerated, and the same process spread its margin, until ultimately it joined the disease spreading upwards from beneath the chin, the two having coalesced and become inseparably united together. During the last four months still further changes have been added ; not only has the original manifestation of the disease been progressive, but we have formed two additional tumours, situated one on either side of the neck, and in the line of the absorbents, manifestly of encephaloid nature. Their springiness and elasticity, their colouration, and above all, the microscopic examination of their contents on exploration, pointed to, and confirmed the opinion of, their being true cephaloma. In this miserable state she endured, the gravity of the symptoms having been greatly increased, pain giving rise to the most intolerable suffering, the features being haggard and pinched, and the skin of a dull ochry colour, debility and emaciation having made rapid progress, and all the functions of the eco-

nomy more and more becoming implicated in the deteriorating influence of the disease.

In this deplorable condition (in December, 1851), she went back to her family in the country, to await her final release from suffering, which, to all certainty, was not far distant.

Here is a cast accurately showing the condition of the parts previous to operation in January, 1849; and here is a second, graphically illustrating the changes which have been brought about, from the period of nine months after the operation, when the disease appeared in the cicatrix, with all the progressive changes up to the present time (January, 1851), an interval of fifteen months having elapsed. The painting of each has been most truthfully executed.

I have also preserved these microscopic drawings, taken of the primary and secondary tumours as they appeared. Here is one representing the appearances of the tumour that first showed itself beneath the chin. It exhibits a number of true cancer cells, scattered everywhere through a fibrous basis. Some separate cells are also seen detached.

This second drawing shows the arrangement of the encephaloid tumours which sprung up beneath the mastoid muscles. The structure seemed entirely composed of myriads of nucleated cancer-cells, and very closely resembled the secondary formation in the case of Sullivan; inasmuch as there were no caudate corpuscles in this specimen either, and the cells were held together by the finest areolar tissue.

Case 3.—Ellen Fitzpatrick, aged 65, consulted me in March, 1850, for a large bleeding wart, placed above and behind the right ear; it was attended for some time before with repeated hæmorrhages. She said it had been there for many years, never created any annoyance until about six weeks before seeking my advice. She referred the great change which had taken place in it to a bruise occasioned by a water pail that she had been in the habit of carrying on her shoulder. Shortly after this "the wart became very sore," and soon the pain set in, of intense character, darting up along the side of the head, down towards the angle of the jaw, and represented by the sufferer as "indescribably severe." On examining the part, a highly irritable and inflamed base surrounded the tumour, which was about the size of a shilling, uneven on its surface, and elevated about half an inch; it was hard to the touch, and bled upon the slightest pressure from an ulcerated line partly round it and through its structure.

I removed this tumour with great care, cutting far wide of the base, and as I thought most effectively. Two arteries sprung which required ligatures, and so free had been the excision that the edges of the wound

would not permit of being brought together, yet it healed perfectly in three weeks by granulation, a soft yet polished cicatrix being left. For a period of eight months she continued quite well and exempt from all annoyance. After this time she began to complain of uneasiness behind the angle of the jaw on mastication: by degrees the part became tense, and then she felt a small tumour there. This at the time she believed originated from cold, and it did not alarm her, more particularly as she often relieved the urgent pain by repeated stuping. However, the swelling continued to increase so as to become perceptible, and when it attained such magnitude as to fill up the angle of the jaw, she began to suffer from the effects of paralysis of the facial division of the 7th nerve on the right side. Day after day the tumour extended itself, particularly in the direction of the site of the original warty excrescence. At this time she again sought my advice, and then the case was truly a lamentable one. A tumour, considerably larger than an orange, filled up the space between the angle of the jaw and the mastoid process, lost upwards towards the zygoma, passing downwards and encroaching on the neck, extending behind the ear, and implicating the structures attached to the occipital bone: uneven, projecting, and lobulated on its surface; fixed, irregular, and immovable at its base. The colour of the tumour was very remarkable and strikingly indicative of the condition so frequently associated with the proper circulation of the true cephaloma. Large veins traversed it in every direction, some of them lying, as it were, in grooves embedded on its surface; while again numerous vessels marked the colouration in a peculiar way, constituting what might be called a number of vascular spots, from which capillaries radiated in every direction for a short distance, and ultimately breaking up into a fine ramiform distribution.

At this time, which most accurately represented the colour of the secondary tumour, on the corresponding side of the face, from the 7th nerve with the morbid

the right side very remarkable when the forehead the integuments lie flat, no wrinkles or motion as on the left nearly in the centre, dividing the forehead from the uncontracted state of the occipito-frontalis muscle forms a depression of the nasal bone with the forehead closing the eyelids of the right open. When asked to close the

eye forcibly, although she made the attempt, there was not the slightest motion observed in the eyelids. When the eye was at rest, and the patient using the sound one, about half the pupil remained visible, but during sleep was completely concealed behind the upper lid.—The conjunctiva of the eye was in a chronic state of inflammation, and exhibited through a lens a perfectly villous surface, permeated in every point with innumerable vessels. On close examination, the cornea looked dull, but at a little distance presented a borrowed brilliancy from the abundant flow of tears which were constantly secreted and pouring over the cheek. The lower eyelid drooped a little, and the mucous membrane lining it presented the same vascular arrangement as that covering the sclerotic coat. The right nostril lay flat, collapsed, and not distended on a deep inspiration, but rather closed together, and the nose pointed towards the left side. When she blew or attempted to whistle, the air escaped by the right angle of the mouth, the right buccinator not at all corresponding in action with the muscle of the left side, nor with that of the muscles of the chest and neck by which the air was expelled. In mastication, the food collected in the right cheek between it and the teeth, and the patient could not push it from its place without the assistance of the tongue, and frequently of the finger. The saliva constantly flowed out at this side, and when drinking, part of the fluid likewise escaped.

When the disease attained the size represented in the cast, it did not at all increase so rapidly as at first; and during the following thirteen months I had repeated opportunities of watching the course of the disease, a part of it ulcerated, a fungus shot out, and was attended by small hæmorrhages. I regret to say in January, 1852, this creature took typhus fever from an individual in the same lodging house, and died on the tenth day. I could not obtain permission for an examination of the parts.

It may be said, the cases of cancerous degeneration which I have brought forward all occurred in patients of advanced life. In most of the instances which have fallen to my lot for observation, it was so; but I have also seen the change brought about in early age, which the following cases will testify.

Case 4.—Maria Williams, aged 19, a particularly handsome girl, of dark complexion, consulted me in February, 1849, for what appeared a very irritable wart, and situated on the forepart of the neck. She mentioned it had been there as long as she could remember, but that latterly it had increased and become very painful, which she attributed to the pressure of her dress. The tumour when I saw her was the size of a filbert, hard and irregular on the surface, which at the highest point was elevated about a quarter of an inch above the surrounding

ulcer, having all the characters of a true cancerous sore, which at last destroyed the child." (*Wardrop's Observations on Fungous Hæmatodes*, p. 189.)

Case 5.—The supervention of fungous hæmatodes, after the removal of a large wart from the inner side of the foot, is well exemplified by the following case which occurred in our hospital some time since:—Mary Murphy, aged 28, admitted into Mercer's Hospital, October, 1846, being the second time this year. In the preceding February she was received into the house for the removal of a large painful wart, fully the size of a half-crown piece, and situated on the inner side of the left foot. It occasioned her great pain, and was so irritable that even a stocking could not be worn over it, and it was deeply ulcerated round its base. At this time there was no evidence of internal disease, and the lymphatic glands of the extremities were neither indurated nor enlarged; therefore Mr. Tagert removed the part, and without difficulty, for it had no deep attachment whatever; it was quite loose, and readily floated on the surface from the slightest touch. The wound quickly healed, and in three weeks she returned to the country. Her second admission, as above dated, was nine months after this operation, when she was received with far advanced encephaloid disease in the groin of the same side. The history which she gave of the tumour in the groin is as follows: For five weeks after her return home—that is, two months from the period of the operation—she was free from all disease; that exactly at this time “a kernel” appeared in the left groin; it continued to increase for a month, and attained the size of a small apple, when it remained stationary for a short time. Up to this period there was very little uneasiness in the part. After this the tumour began again to enlarge, with a “bursting sensation” in it. During the following months her sufferings were greatly augmented, the tumour widely extending itself in all directions, irregular and nodulated on the surface, and highly sensitive. At this time, too, just before admission, the most prominent part burst, from which she lost a quantity of blood. In this state, then, she was received nine months after the operation, the tumour being larger than the clenched hand, accompanied by darting pains occasionally through it; but she refers an indescribable sensation of tension being always located in the upper half of it, and here, too, was a black spot marking the site from which the hæmorrhage had proceeded a few days before.

November 10th. Since her admission to hospital, the increase of the tumour has been most rapid; it is now enormous, measuring ten inches and a half transversely, and seven and a half from above downwards. Its colour is also greatly altered, being now of a dark purple and reddish hue all over. Its surface is irregularly lobulated, and deprived of skin, with

the elevations coated over by a semi-opaque fluid, and the depressions containing unhealthy watery pus. The constitution is sympathizing acutely with this mass of local disease. The pulse is never under 120; she has at intervals during the night profuse perspirations; her countenance is haggard and of a yellowish hue; and all appetite is gone. One point in the upper part of the tumour is far darker than the rest, and from which point two ounces of venous blood trickled the evening before. There has been no return of the disease on the foot, but the cicatrix is very hard and firm.

13th. There was hæmorrhage last night to about two ounces, but it was readily restrained by a few dossils of lint steeped in spirits of turpentine and finger pressure.

18th. Had profuse hæmorrhage last night; she lost nearly a pint of dark blood; to-day she is greatly exhausted, and bathed in sweat; her pulse weak, yet throbbing, and 130 in the minute; the tumour is quite black and turgid from where the blood flowed last night, and all its lobulated and broken up surface seems a mass of sloughs; she does not complain of pain now.

19th. Is much depressed to-day; at six o'clock in the evening bleeding began again, at first slowly, and was staunched by pledgets of lint dipped in muriated tincture of iron. In two hours after it broke out afresh, and was perfectly uncontrollable. At this time the bleeding was frightful, it issued out in large bursts from the pultaceous disorganized mass. When pressure was made over one point, it welled up as rapidly from under another lobe of the fungus, and so on until death threatened by hæmorrhage; she was waxy pale, with violent jactitation of the arms, profuse cold sweat over the entire body, screaming for the windows to be opened and the admission of air. In these efforts at length all motions ceased, and though there was no appearance of life, yet the blood continued to flow for a few seconds longer, when the pulse forsook the heart, and then death.

On examination of the body, a tumour as large as a small melon, of the same nature as that in the groin, filled the iliac fossa of the same side, intimately attached to the fascia, and implicating the muscles in this region. The iliac artery and vein ran through its base, and below Poupart's ligament the femoral artery and vein were surrounded by the encephaloid structure situated there. This pathological condition may account for the fact of the total uselessness of pressure over either of the trunks in arresting the fatal hæmorrhage. On slit up the artery and vein through their entire extent as they traversed this diseased mass, I could not by the closest examination find any solution of their integrity. Vessels of considerable size, both arteries and veins, however, could be dis-

covered through the structure, with their opened up and patulous extremities. These were very numerous, and evidently the source from which the blood issued in such quantities. The patulous condition of the arteries, as well as the veins, I ascribe to the matting of the coats of the vessels with the surrounding tissues, and thus neutralizing their contractile power. The softer parts of the tumour, on section, exactly resembled the brain in a state of decomposition.

Case 6.—The late Mr. Palmer, of this city, had a case very analogous to the one just particularized, a short time before under his care, in Mercer's Hospital. The patient was a young woman only 24 years of age; she had a flat painful wart on the inner side of the knee; it was there for years, but having become very irritable and ulcerated, and bleeding from the least injury, she solicited for its removal; it was taken away by the knife, and the part healed favourably. She returned to the hospital in five months after; the glands in the groin of the same side being enormously enlarged, and all the structures in the inguinal region participating in the encephaloid degeneration. This creature died before the end of the seventh month after the operation, of repeated and profuse hæmorrhages.

Now the cases which I have given are examples of only one condition of the skin preparatory to ulceration and malignancy; that is, when there exists an indurated warty tumour, and this I conceive to have a cancerous tendency, *ab initio*. The small growth may be unproductive of inconvenience for years, until irritated, as illustrated in many of the cases which I have adduced; then the characteristic pain, sharp and lancinating, never entirely deserts it; ulceration sets in, making breaches round its base, and proceeds to the detachment of the warty surface. During this time, a thin fluid exudes from underneath; hard firm granulations are thrown up from an indurated base, not rising very high, yet presenting a mammillated surface, far denser than the interior of the projecting nodules. The destructive process which I have endeavoured to describe and elucidate by the foregoing cases, presents to the inquirer two very striking characteristics, and essentially belonging to it—1st, that when once the ulcerative process is set up, there is never any amelioration, ever so temporary, no attempt at cicatrization; and 2nd, the great liability of the appearance of encephaloid disease, either in the site of the original tumour or in the line of the absorbents, returning from its position. Here, then, are two marked differences as to the results between it and the condition to which the term *noli me tangere* is applied, and to the *destructive ulceration* most accurately described by Dr. Jacob. Of this latter disease, I present to the Society this highly painted cast to

contrast with those I have already exhibited. It shows well the characters of the disease as recorded by that gentleman. In this instance, though nearly half the scalp was destroyed, though inroads had been made by the disease to a considerable extent on the side and posterior part of the neck, the ear nearly detached, large vessels exposed, coated by small granulations, and sealed up against the passage of blood—yet, I say, with this amount of ulceration and death of parts around, the neighbouring glands did not participate in or suffer contamination.

In the cases Nos. 1, 2, and 3, the germ of disease lay, as it were, innocuous; its malignant tendency did not manifest itself until a very advanced period of life, at the respective ages of 52, 70, and 65: while in the cases Nos. 4, 5, and 6, it was ushered into existence at a much earlier age, 19, 28, and 24; while in Mr. Wardrop's case, the subject, a little girl, was only 12 years old.

It is remarkable, too, that once the ulceration was fairly established in the primary tumour, true encephaloid disease rapidly sprung up either in its site or in its immediate locality, with the exception of case No. 4, successfully extirpated. Again, in every instance which I have recorded, all the changes were brought about more speedily, and death followed more quickly, in proportion to the youth of the patient.

The inferences deducible from the results of these several cases, relative to treatment, point to the practical precept of early extirpation; we have evidence of its beneficial results in case No. 4, though ulceration, with its characteristic attendant symptoms, had just manifested themselves; the part was excised, the wound healed, and there has been no return of the disease, though a period of over three years has now elapsed.

the operation, I conceive, was had recapillaries were charged with the pro; and though in some instances the short time the secondary results, the eff. themselves in the form of encephaloid. I of the line of treatment to be adoptivise all warts, when situated on the by the knife as early as possible, no may be, as they all have a tendency in. he manner which I have endeavoured

cases brought under the notice of the cher, were both instructive and inter- said he fully concurred in his conclud-

ing observation, which should be borne in mind by every person who was likely to encounter those remarkable affections—namely, that a suspicious looking wart, especially on the face, should not be tampered with by attempting to effect a cure, but should be extirpated with the least possible delay. The remarks of Mr. Butcher had brought to his recollection the case of an acquaintance of his own, a very handsome young lady, who had upon her right cheek a wart of a very suspicious nature. Meeting her in the street one day, he asked her about it, and she informed him that it was a thing of no consequence whatever, and that her apothecary was daily in the habit of applying caustic to the wart with a view of curing it. He advised her to go to some eminent surgeon and have it removed ; she took his advice ; the wart was extirpated, and from that day to the present there was no return of the disease. But if she had permitted more time to pass without the removal of the excrescence, she would in all probability be now in the condition of one of the unfortunate patients described by Mr. Butcher in his interesting communication.

Dr. JACOB believed the cases adduced by Mr. Butcher to be well worthy the consideration of the profession ; and trusted that they would have the effect of calling attention to the subject, as it might perhaps lead to a more distinct arrangement of these affections, than had been hitherto made. Last year he (Dr. Jacob) exhibited to the Society a case in which he had extirpated a tumour of a malignant nature from the orbit, and as such a case must be watched with great care, of course he kept the patient within view. It was one of carcinomatous tumour of the orbit, with encephaloid growth engrafted upon it. The poor man had since come back to him with a return of the disease, a great development of encephaloid structure having taken place in the orbit and on the side of the head. The instructive question in those cases was, whether they ought or ought not to extirpate the disease. Eighteen months had gone by since the tumour was removed in the case to which he referred ; and therefore he thought that the argument for the operation amounted to this, that the man's life was prolonged, though not saved by it.—*Dublin Medical Press.*

[The foregoing eminently practical paper, well deserves the attentive perusal of the Surgeon. Dr. Butcher has opened up a field for inquiry not hitherto cultivated, and we doubt not, our readers will feel as grateful for his investigations, as we have much pleasure in acknowledging that we are.—[*Eds. Can. Med. Journal.*]

PATHOLOGY AND PRACTICE OF MEDICINE.

On the structure, function, and diseases of the liver; and on the action of cholagogue medicines. By C. H. JONES, M. D., F. R. S.

THE author first described the minute structure of the liver, which consisted essentially of a mass of nucleated cells or celloid particles, usually more perfectly formed than the cells either of the salivary or renal glands, presenting a distinct nucleus, with a nucleolar spot, an exterior envelope, and an included mass of soft, semi-solid, albuminous substance, which commonly contained a few oily molecules. In addition to these, in well-nourished livers, were numerous free nuclei, imbedded in albuminous blastema, which exhibited various stages of progress towards the mature or perfect cell. The oily contents of the cells were subject to great variation, both in the same individual and in different classes of animals; the less perfect the type of the respiratory process, the greater the quantity of oily matter in the hepatic cells. The cells in their general mass constituted the hepatic parenchyma; this might be subdivided into smaller portions, called lobules, which were separated from each other more or less completely by fissures, the fissures themselves being continuous with canals that ramified throughout the parenchyma, and which, from containing the portal vein and its associated vessels, had been termed portal canals. In reference to the mode of distribution of the vessels, originally so well expounded by Mr. Kiernan, the author remarked that he decidedly agreed with Theile, who denied the existence of the vaginal branches and plexus of the portal vein mentioned by Mr. Kiernan. The author quoted from a paper by Mr. Paget, who had described these vaginal plexuses to be derived, not from the portal veins, but from the hepatic arteries, from which they were completely filled, when both arteries and veins were at the same time injected. The interlobular portal veins were therefore derived directly from the portal veins; and those which appeared to be vaginal branches of the portal vein were its internal roots, by which it received the blood which had

atic ducts and other vessels of the liver. The bifurcation of the hepatic artery, and the branching of the branches of the portal canal, which existed between the ultimate cells of the parenchyma of the lobules. These cells were exactly homologous to the salivary vesicles, like them growing on a common membrane, forming anastomosing tubes, and plexus. Others, unable to find a basis for the ducts as continued into the paren-

Hence some anatomists had believed the ducts as continued into the paren-

chyma of the lobules, as channels without proper walls, mere intercellular passages. After referring to the researches and opinions of Weber, Müller, Professor Retzius, on the one side, and of Val Guillon, Gerlach, and Doctor Carpenter, on the other, the author stated that the views of Kölliker, who denied the existence of intercellular passages in the lobule, agreed very nearly with his (the author's) and conceded his main position, that the cavity of the ducts was quite shut off from the cells of the lobules of their interspaces. The structure of the ultimate ducts, which the author had first discovered, was peculiar, and seemed to indicate strongly that they exerted active functions, and that they were something more than mere afferent canals. The injection of the duct, in the livers of pigs, by the double method, using separately saturated watery solutions of bichromate of potass and acetate of lead, exhibited an abundant yellow precipitate in the fissures; but in very few parts did it penetrate the lobules, which must have happened if there existed a lobular biliary plexus, or a plexus of intercellular passages. The author conceived, therefore, that the hepatic ducts did something more than merely carry out already elaborated bile. The ultimate ducts were far too small, and too sparingly distributed, to be able to take up the bile from so vast a mass of cells as that which constituted the parenchyma. If the ducts did not extend beyond the margins of the lobules, of which the author had no doubt, then the bile must be transmitted from cell to cell; or there was a march of cells outwards from the centre to the circumference; or else the bile, arriving at the margin of the lobules, was taken up by the ultimate ducts in some unknown way. The author thought such assumptions groundless and unnecessary; and that the pathological state of fatty liver, as well as the fatty liver occurring naturally in fishes, showed that the secretion of the parenchyma was not identical with that of the ducts, for the gall-bladder could hardly contain deep-green bile, when the parenchyma was nought but a mass of oil. He concluded, then, that the parenchymal cells of the lobules did not merely secrete bile which was carried off unaltered by the ducts, but that the cells secreted biliary material, or some of its components, which were not fully elaborated or formed into perfect bile, except by the action of the ultimate ducts. Proof was then offered that the hepatic cells did not ordinarily contain bile, although it was commonly held they did. He believed that to be a diseased or exceptional condition, not found in the hepatic cells of slaughtered or healthy animals. Furthermore, a yellow tint in the cells was no proof of the presence of bile; it showed merely the presence of pigment, and yellow pigment is found in the fat of some animals, quite independent of biliary secretion. Chemistry must be resorted to, to solve the question of the presence of bile in the hepatic

cells. The author had made alcoholic extracts of the livers of different animals, and having evaporated to dryness, the residue, when dissolved in water, failed to show, by Pettenkötter's test, any reaction characteristic of the presence of the bile. The author, however, did not wish to express a positive opinion, but he thought that the received opinion had need of more direct evidence, before it could be regarded as proved. He then detailed the mode in which the morphological structure of the ultimate biliary duct fulfilled the function of secretion. The chemical changes which the ultimate ducts effected, might be conceived according to the hypothesis of Lehmann ; and a summary of our present knowledge might stand as follows : Sugar, oil, and a yellow pigment were found in the parenchyma of the liver ; bile is not found there, but in the ducts ; it is inferred, then, that the ducts, through their ultimate extreme portions, *make* the bile. The author next proceeded to detail some experiments made relative to the action of cholagogue medicines, the results of which led him to believe that mercury, muriate of manganese, and colchicum, were the only ones which seemed to increase the production of yellow pigmentary matter in the cells of the liver. They also increased the production of glycocholate and tauro-cholate of soda ; but it had to be determined whether the quantity of these principles was always proportionate to the yellow pigment. It was clear that the cholagogue action of a medicine, its emulging effects on the ducts, was distinct from that which it excited in the production of biliary pigment. One very important effect of the administration of mercury on the liver was noticed to be congestion of this organ ; an argument rather forbidding the use of the remedy in inflammation of the substance of the liver, a plan otherwise recommended by analogical experience. The author then passed to the subject of diseases of the liver ; the microscopic appearances of fatty liver were detailed, and the question, what constituted true fatty degeneration of the liver, discussed. Was it a simple increase in the quantity of oil naturally existing in the hepatic cells, or was it a further and more important change ? He believed the latter. In the liver of animals artificially fed on oily food, and subsequently examined, the cells, as well as the inter-cellular substance, were loaded with oil-molecules ; the accumulation of oil was equal everywhere. But in the morbid state of fatty degeneration, the oil-drops were not enclosed in distinct cells, but appeared to lie in an indistinct and granular, or semi-fibrous substratum. Another point of difference consisted in the absence of sugar in true fatty degeneration ; while in the liver of an animal fed on oily food to produce a fatty liver, sugar could be detected. Another point of importance was the limitation of fatty degeneration to the margin of the lobules ; it was not a mere accumulation of oil in the marginal cells ; a

liver thus affected presented the lobules marked out by a zone of opaque matter. No satisfactory explanation of this tendency of oil to accumulate in the marginal cells could be offered. Fatty degeneration of the liver might occur in very different diseases ; it was by no means peculiar to phthisis. Reference was then made to the waxy liver of Rokitansky, with which the author was not sure that he was acquainted. Cirrhosis was then mentioned, and Rokitansky's description quoted, as also that of Dr. Budd, whose views expressed the opinion ordinarily received, but from which the author in some degree dissented. The author believed that an unhealthy nutritive process was the essence of cirrhosis, and might be developed in one of three situations. 1. In the larger and moderate-sized portal canals, excluding only the smallest. 2. In these last and in the fissures. 3. In the smaller canals and fissures, and in the substance of the lobules. The first form produced common *hobnail* liver ; the second and third, the tough, firm, dense liver, sometimes termed brawny. The author considered cirrhosis to represent essentially a degenerative process, and to arise from the effusion of an unhealthy plasma, not only in the canals and fissures, where it induced unnatural increase, but also in the external part of the lobules, where it passed into a solid form, and constituted an amorphogranular substance, compressing the capillaries and obstructing the secreting cells. The thickening and condensation of the fibrous tissue in the liver were thus not so much the effect of an inflammatory action, as of a low degenerative process, analogous to that which stiffened the valves of the heart and contracted the orifices ; and which view the author thought was supported by the results exhibited in a table appended to the paper. The subject of jaundice next received attention. This was a disease that manifestly resulted from the conveyance into the blood of bile pigment, a constituent of the bile which was essentially excrementitious, and intended to be cast out with the *fæcal* matter. In many cases it existed only as retained excretion ; in others it seemed to be formed in excessive quantity, as in the acute yellow atrophy of the liver. Yellow matter was often found in the central cells of the lobules, and nevertheless there was no jaundice. It should be borne in mind, that the yellow pigment, as it existed in the cells, did not evidence the presence of biliary matter, of cholic acid, or its conjugates. The yellow matter could be extracted by alcohol, and its characteristic reaction obtained by nitric acid, but Pettenkøffer's test decided against the presence of any organic biliary acid. The deep colour of the urine in jaundice depended on the presence of bile pigment solely ; no trace of cholic acid was discoverable. The author considered the majority of cases of jaundice to depend on the absorption into the blood, not of completely formed bile, but of one of its constituents

only, the yellow pigment; and this might take place in one of three ways: 1, by a mechanical obstruction to the flow of bile into the intestine, through the ductus communis choledochus; 2, from inaction of the elaborating ducts; 3, with or without impairment of the action of the excretory ducts, when an increased quantity of yellow pigment was formed in the parenchyma of the liver.

TOPICAL MEDICATION OF THE LARYNX.

Dr. COTTON brought under the notice of the Medical Society of London a new method of applying a solution of nitrate of silver, or any other substance, to the laryngeal mucous membrane. After making a few remarks upon the practice of introducing a piece of sponge *within* the larynx, which he believed to be not only practicable, but, in the majority of cases, useful, and always with proper precaution harmless, he had nevertheless become convinced, from a number of experiments at the Consumption Hospital, that it was better merely to drop the solution into the laryngeal opening. This was easily accomplished by means of the simple instrument he presented to the Society, which was made by Mr. Coxeter, and consisted of a pair of forceps slightly curved, and having a small piece of sponge attached to one of its blades. By depressing and slightly drawing forwards the tongue by the ordinary spatula, extremities of the blades might be held over the larynx, and at the proper moment the contents of the sponge could be squeezed into it. Dr. Cotton had used it successfully in a considerable number of cases, and had found that it was generally less disagreeable to the patient, and produced less spasm and cough, than the ordinary method of passing down the sponge itself; whilst it possessed the obvious advantage of making it impossible that the sponge could ever fall into the larynx, the closing of the forceps effectually holding it. The sponge would contain about half a drachm of fluid, nearly the whole of which might, if desired, be applied to the laryngeal membrane and its neighbourhood, the cough which invariably followed its use always ensuring its diffusion.—*Lancet*.

DEVELOPMENT OF PUS CORPUSCLES.

Dr. SANDERS reported some observations on the corpuscular contents of the vesicles of small pox. On the fourth day of the eruption, the fluid of the vesicle presented some clear, gray nuclei, about the size of blood corpuscles, and showing only one or two granules in their interior when acted on by acetic acid. On the fifth and sixth days these corpuscles had increased in size and numbers, and become more granular; the

amount of free molecules and granules, at first very scanty, was now greater. On the sixth and seventh days, nucleated cells, spherical, and more or less granular, occurred along with the corpuscles before described; and a few large cells, of the diameter of four to five blood discs, and containing several nuclei imbedded in granular matter, were also observed. The corpuscles, however, were the chief elements; they were granular, like the usual pus-corpuscles, and presented under the action of acetic acid, some a triple nucleus, others several granules. From this stage, when the fluid was distinctly purulent in its characters even to the naked eye, up to the time of scabbing, or twelfth day of the eruption, the changes were a gradual increase in the free granular matter, and a diminution in the amount of corpuscles, which at last gave place to the granular matter; which last, along with epithelium cells, dried up to form the scab. The fluid of the vesicles therefore exhibits a process of cell growth from nuclei to pus corpuscles, and nucleated cells, which become more and more granular, and break up at last into free granular matter. The so-called pus-corpuscles are a stage in cell formation. Considering the small amount of granular matter, both free and within the corpuscles at the beginning, and its great abundance subsequently, the author was disposed to doubt the formation of these corpuscles and cells by the aggregation of granules subsequently surrounded by a cell wall, but regarded the granular matter rather as a production of cell growth.

MIDWIFERY.

ARTIFICIAL DILATATION OF THE OS UTERI. BY S. W. J. MERRIMAN, M.D. THE author, conceiving that the true principles of midwifery have recently been assailed, gave, concisely, arguments from various sources, why it is improper to accede to the proposal to use the fingers as dilating agents in the first stages of tedious labours. No accoucheur can attain true celebrity, he said, who is unable to discriminate between the two principles of action—viz., when to leave the case entirely to Nature, when to render aid. He first referred to the opinions of ancient and almost modern writers, who all advocate this plan of treatment by manual dilatation, and stated that their habit of speaking of the os externum vaginæ as the os uteri, and their belief that the child by its own efforts conduced to the opening of a passage for itself, rendered their advice useful only as a matter of history, not as a rule of practice for the present day. He expressed his surprise at finding such recommendations brought forward at the present time, the reasoning on which the advice was founded being so completely at variance with what we know

to be the real state of the case. He then proceeded to the writings of accoucheurs published 100 years ago, and stated that the same advice was found in them, coupled with much else that is now obsolete, because injurious. The learned Smellie, who did so much for the practice of midwifery, was instanced as having gravely recommended and practised dilatation of the os externum by the hand formed into a conical shape, in order that he might pass his hand flat between the head of the fœtus and the os uteri, believing that to be the best way of preventing "the os uteri being pushed before the head of the child." That such advice should be followed, or even referred to as evidence of the applicability of the practice, was inconceivable, especially when coupled, as it is, with recommendations to press back the os coccygis to make room; the principle of Smellie's usual conduct being to do as much as possible himself, and to leave very little to Nature. Passing on to modern authors he showed that Burns expresses his belief that the first stage of labour, or the complete obliteration of the os uteri, should be accomplished in a certain time; and that Dr. J. Hamilton limited the time to twelve or fourteen hours of constantly recurring pains, and recommended artificial dilatation by the fingers if the complete opening of the os were likely to be delayed beyond that time. This brought us to a reason alleged which could be fairly considered—viz., that danger necessarily accrues if the labour last many hours—over twenty-four hours, for example—the term usually assigned to a natural labour. This doctrine he controverted in the following manner. Allowing that Prof. Simpson's analysis of Dr. Collin's tables shows that danger to life does increase as the duration of labour is prolonged, he did not consider that danger of much moment, compared with the very great majority of perfectly natural labours of short duration; the question being rather, whether dilatation by the finger does not produce as much injury as the prolongation of the labour would. He brought forward the following statistics, from Dr. Collins, that out of 15,850 labours of all kinds, the period of which was noted, 13,412 were over within six hours; 1672 additional within twelve hours; and only 766 were prolonged to twenty-four hours; the total mortality being 158. Dr. Joseph Clarke, of Dublin, attended at 3878 births, in his private practice, and lost none from the effects of protracted labour. In his hospital practice he enumerates 9748 ordinary labours over within twenty-four hours, with 71 deaths, and only 183 similar cases prolonged beyond that time, 37 of whom died; but 49 had required craniotomy and be performed, the head being impacted. The author says—"We have therefore very strong reasons for being in no hurry to hasten the termination of labours, seeing how very large a majority terminate speedily, and how trifling the mortality is from the mere length of time occupied."

Pressure by the fingers could not, it was shown, act on the os uteri like the bag of waters, or the head when moulded into a lengthened shape. There could be no reciprocal action between the force pressing upon the cervix and the power of the uterine structure to endure the pressure. The accoucheur cannot tell by the mere motion of his finger what amount of space there is for the head to occupy ; and he will seldom succeed in keeping up the lip of the os, except in the last moments of a protracted first stage of labour. Fissures of the os uteri in labour, with enlargement and ulceration, so called, of the cervix, about which so much has lately been said, were briefly alluded to ; the cause of these post-parturient complaints being considered a want of tone in the uterine vessels, contraction not duly taking place after labour, or, in other terms, there being want of re-absorption of the enlarged uterine structure. The author considered that pressure on the os uteri in artificial dilatation must bruise the part, and render it unable to resume perfectly its pristine condition. The os is treated as if not possessed of sensibility ; the sensibility to external objects may be slight, but the distribution of nerves of the organic class is abundant, and they cannot fail to receive injury, and so impede the return of the part to a healthy condition. The necessity of bleeding and tartar emetic to overcome congestion, where pressure has been exerted on the os uteri, pushed down before the head, was also briefly alluded to, as an argument against using artificial pressure in ordinary cases. The author proceeded as follows :—“The temptation to endeavour to hasten a slow labour where the patient resides at a distance, where the fee is small, and a sufficient income can only be got by incessant occupation among a number of patients, is too strong to be resisted ; the smallest concession to the desire to afford manual assistance in some peculiar cases is certain to be extended to others, where the necessities of the practitioner are so many. We ought therefore to set our faces boldly against any proposals, the following of which is likely, almost certain I might say, to be injurious to the mother.” Then suggesting that the “passing the finger gradually round the os uteri” may produce its effect in a secondary way, by enabling the accoucheur to regulate the mother’s expenditure of force upon her uterine organs, by observing whether her powers are equal to the task, and giving nourishment or medicine as required, he concluded thus :—“I look upon labour as essentially a natural, healthy process, yet verging upon disease. The accoucheur’s business is to preserve health, not to promote disease ; he may hasten a labour by interference, but the interference of dilatation of the os uteri by the finger ought not to be made, except there is that amount of pressure upon the anterior lip of the uterus which would soon bring on congestion if it were not moved out of the way.”

Canada Medical Journal.

MONTREAL: AUGUST, 1852.

MEDICAL CONVENTION AT TORONTO.

As there is no subject, at present before the profession of Lower Canada, of sufficient interest, with which to occupy the attention of our readers, we have been looking with anxiety for the appearance of our Upper Canada contemporary, to ascertain from his pages the particulars of the above meeting, but as yet he has not reached this city. We are not, however, without different versions of the scenes there enacted, furnished by our correspondents, but as they are evidently biassed by private feeling we refrain from giving any extracts from them; they all agree, notwithstanding, in one point, that a great want of unanimity pervaded the assembly, and that some of the proceedings were any thing but regular. Strange it is, that with the common enemy, QUACKERY, assailing the profession in every quarter, its members cannot lay aside their personal feelings, and unite in one common struggle for self-protection, which only requires a hearty co-operation with one another to be successful. In Lower Canada, a difference of race, and a difference in habits, and to some extent, of practice, between the members of our profession, will account for the want of concord sometimes displayed amongst

profession demanded removal of the
e causes, we did overcome them
a good, and as a reward, have ob-
ch has already, in many instances,
itioner. But, in Upper Canada, no
tence, but there, party politics and
ference in race, religion and inter-
ruit of this want of unanimity more
ling from ourselves the fact, that un-
becomes incorporated, it must lose
lown quackery, it will become tinc-
gular practitioner, who has a family
ick gains ground more rapidly with

the public than he does ; he sees he cannot interfere with the charlatan's progress, he adopts, the next best step—*he imitates him*—he is forced to do it in self defence. At first the attempt is revolting to his finer feelings—he soon becomes callous, and if pecuniary reward follows his experiments, he feels he has got the recompense, the legitimate practice of his profession refused to afford. Whatever is most striking in the career of the quack is now most attractive to him, and he is ready to take up any novelty in practice for which the public mind has shown a partiality. He may not do it so awkwardly as friend *Carson*, whose advertisement we copy from a country paper ; he may commence in a more modest manner like friend *Seagram*, whose pills “are calculated to relieve under any circumstances.” How blessed are the good people of Galt, let them but show the learned Carson their urine, and the pills of the modest and retiring Seagram, who, by the by, is also THE CORONER of the District, will *relieve them under any circumstances*, and lest any inconvenience may accrue to those fortunate Arcadians, they can procure these health restoring globules at *S. Miller's Store*, who is appointed *wholesale agent*,—an admirable arrangement, whereby a great saving in the way of discount will, no doubt, be affected. With Dr. Carson, we have nothing to do, his name is not on the list of licensed practitioners, but as Dr. Seagram has procured his provincial license, we think his advertisement fully proves the necessity for a corporation, and as his pills *are calculated to relieve under any circumstances*, we recommend him a full dose *half an hour* before perusal of this notice, which we trust “will prove not only a good Digestive,” but an excellent *Corrective*.

DR. SEAGRAM'S CELEBRATED VEGETABLE ANTI-BILIOUS PILLS.

DR. SEAGRAM, in calling the attention of his friends to his Vegetable Pills, would state that they are calculated to relieve under any circumstances. If taken in the following manner they will prove useful to all, and more particularly to Females :—

One every day, half an hour before dinner, will prove a good Digestive. When a greater effect is required, two or three will be required to be taken.

To be obtained at *S. Miller's Store*, who is appointed Wholesale Agent, or of *Dr. Seagram*, at his residence, near the Queen's Arms Hotel.

Galt, Oct. 21, 1851.

GERMAN METHOD OF PRACTICE.

DR. CARSON respectfully announces to the Public of the County of Waterloo and surrounding country, that he has opened a *Medical Office*, in the Town of Galt, second door West of the Bridge leading from Main Street, where he will at all times be happy to attend to the calls of those who are afflicted with Disease, either Acute or Chronic, and render them the most speedy Relief.

From the experience of several years' practice, and the success Dr. Carson has had, with the addition of all the Remedies of one of the best Medical Reform Colleges in the United States, [of which Dr. C. is a Graduate] he feels safe in saying that his method of treating Diseases of the Lungs, Liver, Kidneys, Spine, Nerves, and all Female Complaints, cannot be surpassed by any in the country.

He would also say that he has obtained a thorough knowledge of the German Method of Practice, by which he arrives at a correct diagnosis in all Chronic cases, and will prescribe medicine accordingly. To those acquainted with this system of Practice he would say, he examines the Urine to tell the diseases. It should be brought in a clean vial, holding from 2 to 3 Ounces; the first in the morning is preferred. The name and age of the Patient are requested. No charge is made for examination or advice. Medicines for Chronic diseases, are principally from the Vegetable Kingdom.

☞ To those afflicted with disease of the Eye, Cancers, or Fever Sores, Dr. C. warrants a Cure or no pay.

☞ All diseases of a private nature kept in profound Secrecy.

☞ All calls attended in Town or Country.

G. A. CARSON, M. D.

Galt, 18th June, 1852.

We copy the above from the "Galt Reporter." It will give a good idea of the sort of competition the regular Physician has to cope with in Upper Canada.

A SURGEON COMMITTED FOR MAN SLAUGHTER.

ON Friday an inquest was held at Wellow, a village in the neighbourhood of Bath, before J. Whitmore, Esq., deputy coroner for the Northern Division of Somerset, and a respectable jury, upon the body of a woman named Ann Nokes, the wife of a labouring man residing in the village, who had died on Monday morning last, in consequence (it was alleged) of the gross neglect of the medical man who attended her in her confinement. The evidence occupied several hours, but the facts may be briefly stated. The poor woman (the deceased) was 45 years of age and the mother of 11 children. On Sunday afternoon last she was taken in labour with the 12th child, and there being peculiar circumstances in her case, the woman in attendance upon her sent her husband for Mr. Bourn, a surgeon, residing at Radstock, a village a few miles off. That gentleman appears to have come as early as possible, and remained nine hours in attendance upon her, during which time he removed a part of the infant. At 4 o'clock in the morning, however, he received a message from Mrs. Parker, the wife of a yeoman living a few miles off, requiring his attendance under similar cir-

services had been bespoke two months ear, he immediately resolved to leave to go to his richer patient, on the plea Parker but not by Mrs. Nokes. As he was despatched to Mr. Marsh, ately attended, and proceeded with the Bourn. The unfortunate creature, ed, and died in two hours after. The

jury consulted together for a few minutes, and then returned the following verdict :—"We are of opinion that Ann Nokes (the deceased) died through exhaustion consequent on the neglect of her medical attendant, Mr. Bourn." The coroner inquired if he was to understand the jury to intend that their verdict should be one of manslaughter against Mr. Bourn. The foreman said they had carefully considered the case, and that was the only conclusion they could come to. The coroner's warrant was accordingly made out for the committal of Mr. Bourn.

[There can be very little doubt that the jury returned a proper verdict in the foregoing case. The man who could, for filthy lucre, abandon an unfortunate woman, under the peculiar circumstances of the foregoing case, could hardly expect a more lenient punishment.]

Removal of Liebig from Giessen.—Professor Liebig has at length yielded to the inducements held out to him by the Bavarian government to leave Giessen and settle at the University of Munich. He is to commence his labours there with the winter season.

Notice to Subscribers.—We beg to call the attention of our subscribers to the necessity of immediately remitting us their subscriptions. The amount is to each a mere trifle, but the sum now due to us, is in the aggregate, a considerable one. We have, it is true, met with a most liberal patronage, but the expenses of publication are very heavy, and to meet the demands upon the Journal, it is necessary we should suffer as little delay as possible in procuring our subscriptions. We hope our friends will comply with our reasonable request.

Obituary.—At Lennoxville, the 9th ult., Simeon Mallory, Esq., M. D., aged 66 years.

At Quebec, on the 19th instant, William T. Kimlin Esq., M. D.

His Excellency the Governor General has been pleased to grant Licenses, to practise Physic, Surgery and Midwifery in Upper Canada, to the following Gentlemen, viz :—Solomon W. Davidson, of Bowmanville, Jeremiah W. Sovereign, of Paris, and David S. Bowlby, of Waterford.—*Secretary's Office, Quebec, July 24, 1852.*

CANADA MEDICAL JOURNAL.

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MONTREAL: SEPTEMBER, 1852.

No. 7.

ORIGINAL COMMUNICATIONS.

Case of "Vascular Tumour" of the Female Urethra with observations on "Varicose Ulcer of the Womb." By R. L. MACDONNELL, M. D., Surgeon to St. Patrick's Hospital; Lecturer on Surgery St. Lawrence School of Medicine, &c., &c.

As cases of "Vascular Tumour of the Meatus Urinarius" though common in Europe, are not so frequently seen in this country, at least, according to my own experience, an account of the following case may not prove uninteresting to the profession, particularly as it is a disease of middle age, and seldom occurring in persons so old as my patient.

January 19, 1850, Mrs.——, aged 60, consulted me under the following circumstances: For the three years previous, she had suffered excessive pain in the region of the neck of the bladder, and bearing down pains, accompanied at first by a discharge of a watery character, mixed, at times, with pus, and sometimes having an offensive odour. Believing

her age and change of condition not consult any medical assistance, they became suddenly serum kept constantly at of three or four ounces of too much, and at other assignable cause. She desination and led her (she and that her malady was his idea, she made up her mind and endeavoured by change that relief which seemed was whilst at one of our ion her ailments to a skil-

ful practitioner who had attended my lectures upon these diseases, who, even without examination, perceived that the symptoms differed from those of cancer, and advised her to place herself under my care. This she was unwilling to do, being so convinced of the malignant character of the disease and that surgery could afford her no relief. But as the hemorrhages became daily more frequent and more profuse, and as she was becoming exsanguine, and greatly enfeebled by these excessive losses, her family prevailed upon her to send for me, and accordingly, I examined her on the 19th of January, 1850, when I found her in the following condition:—

She was tall and thin, skin of a sallow colour, the lips were pale as was also the inside of the mouth and tongue, a change which had recently taken place, she had oedema of both feet and ankles, the pulse was small, and frequent, 90, she suffered from palpitations, tendency to fainting, headache, noise in the ears and dimness of sight; these symptoms having increased in proportion to the frequency and amount of the hemorrhages. Her appetite was bad, bowels irregular, and her spirits were greatly depressed, being under the impression that her constitution could not long hold out against such frequent losses of blood. She complained of excessive pain *about the orifice of the urethra and in the urethra itself* which was greatly increased by passing urine, which she was obliged to do, almost every half hour, or every hour, the pain was also much aggravated by the least motion, and when walking across her room, she was obliged to stoop forward, for the double purpose of avoiding pain, and not inducing bleeding. She stated that she had felt a small tumour near the orifice of the urethra which was excessively painful to the touch and which bled profusely whenever it was examined; that in addition, some hard growths, not painful to the touch, occupied the orifice of the vagina and extended some distance within: these had commenced growing about a year before the painful ones, and their presence gave rise, she thought, to the distressing sense of bearing down to which she had been subject.

On making an examination I found the following state of parts. The labia being separated, a tumour of the size, shape and exactly the colour of a large ripe red raspberry was found growing from the under lip of the urethra, and under surface of its vaginal aspect, it was largest at its base, was very painful to the touch, and the least contact of a probe gave rise to bleeding. On dilating the urethra, another tumour about the size of a very small pea was seen growing from its under surface, but nearer the bladder, these two tumours being separated from it by an interval of healthy structure. The tumour nearest the bladder followed the most general course of the urethra, and was the largest, with a

long irregular tumour which ran along its upper wall, for about an inch and a half, opposite to it on the posterior wall, was a second tumour, but of smaller dimensions and more rounded, neither of them was painful and the mucous membrane covering them was very pale. The uterus was perfectly healthy. The nature of the disease being now evident, I proposed removing the tumours, to which the patient gladly assented, and the next day, performed the operation as follows:—

The patient was placed on her back on the edge of a high bed, near a window, the labia being separated by a female of her acquaintance, (as she objected to having another medical man present) the larger of the two vascular tumours, was gently seized by a broad bladed forceps, for its structure was so delicate, that I had difficulty in avoiding breaking it, and then was excised from its base by means of a small scalpel, no hemorrhage ensued, and the surface of the wound showed that I had cut deep enough to eradicate the disease. I now introduced a dressing forceps into the urethra and dilated the passage to an extent sufficient to enable me to cut out, with a delicate scissors belonging to a case of eye instruments, the small tumour which occupied the situation before alluded to. The raw surface appeared free from disease. The speculum being introduced, both the vaginal tumours were dissected out without any difficulty, and as the upper one was so intimately connected with the under surface of the urethra, the latter was kept supported up against the arch of the pubis by a silver catheter introduced for that purpose. Some oozing of blood took place, which was arrested by means of a plug of lint dipped in iced water. The patient bore the operation with great fortitude, and under the influence of an anodyne, soon fell asleep.

The tumours immediately after removal became pale and shrivelled, and though I examined their structure with the microscope, I candidly confess, I could not make out, with accuracy its constitution, and consequently, will not attempt a description of it. Six hours after the operation, I drew off the urine with the catheter, and as some bleeding had taken place from the vagina, an ice plug was introduced and broken ice was kept applied to the external part. The next day she was quite well, and free from all suffering, and nothing unusual occurred until the 8th day after the operation, when the granulations from the seat of the larger vascular tumour, appearing too florid and spongy, were, as a measure of precaution, freely cauterized with the penitrate of mercury, a caustic, which I may take this opportunity of recommending to my readers, as preferable in all cases, to nitric acid, when the part to be touched, is *either very small, or is deeply seated*, for it being free from any fumes, the whole extent of the part can be accurately touched, and

the healthy parts escape unnecessary cauterization. The granulation and cicatrization proceeded without anything occurring, worthy of note, and on the 1st of March she was perfectly well and able to take exercise, and drive about in a sleigh without any pain or inconvenience. The symptoms depending upon loss of blood quickly disappeared, and she has past the last two years free from suffering and in the enjoyment of excellent health for a woman of her age, and is now able to attend to the management of her establishment and to enjoy the society of her family and friends, a change which surely repays her for a few moment's pain.

The foregoing case will exhibit the necessity for accurate examination both by the touch and the speculum before giving an opinion on the nature of a disease of the female organs. Had the practitioner who first examined her, comprehended the necessity of this point, and understood these diseases, much suffering, both of mind and body, would have been saved, and many an anxious and sleepless night prevented; for what can be more appalling than the consciousness of having a disease which produces death by frequent hemorrhages; every gush of blood, threatens to be the last, and when this is excited by the least movement of the body, or by the necessity for emptying the bladder or bowels, the measure of misery is indeed full to flowing over, add to which, the distress that pervades a family about to lose an esteemed relative by such a fearful disease: and yet all this might have been averted in the foregoing case, by a careful examination of the patient.

To the junior practitioner I would say, in all cases of hemorrhage from the vagina, make a careful examination: it may proceed from an easily removeable disease, as in the present case, or from a polypus, which you can also be removed, as happened recently in a case in St. Patrick's Hospital; or it may proceed, on the other hand, from an incurable malady, and you may hold out false hopes of recovery to the patient and her friends, whilst disease is insidiously hurrying her to the grave, as occurred in two cases recently under my observation, in both of which the practitioners had treated the cases as examples of common menorrhagia, but which on the speculum being introduced and a careful examination being made, were proved to be instances of *corroding ulcer* of the uterus, a form of disease not often met with. In one of these instances, the practitioner with whom I was attending in consultation, verified the diagnosis by post-mortem examination, which showed, removal of all the neck, and a portion of the body of the uterus. Alarming hemorrhage to the extent of producing anæmia and its attendant symptoms may be caused by a disease which I believe I have been the first to describe in my lectures, under the name of the

“ Varicose Ulcer of the Uterus.”

In all the instances of this ulcer I have seen, the os uteri was very patulous, its edges thickened and everted, and fissured by deep chinks from which bloody fluid was constantly escaping. The color of the cervix was of a dark purple, and large tortuous veins could be seen traversing its surface, in some spots near the lips of the os presenting themselves in the shape of small blueish-looking elevations, closely resembling piles. The neck of the womb was free from pain, soft and spongy to the feel, but much larger than in health, and the whole uterus appeared to be greatly increased in size. Bleeding goes on almost constantly during the intervals between the monthly periods, but when these latter arrive, the amount of blood lost is much greater than natural, sexual intercourse, or manual examination, causes much bleeding, and if the speculum be introduced, the welling up of blood is so great as, for a time, to prevent careful examination, until removed by a sponge. One of my patients had several miscarriages during the three or four years previous to her consulting me, and on each occasion was near dying from flooding. I have not heard of her for the last four years, and am unable to state if the cure of the disease has enabled her to carry a fœtus the usual period. In two cases, exaltation of sexual feeling attended the disease, in the others, no alteration in this respect was noticed. In some of the cases the patients suffered also, from hæmorrhoids, but in others they were free from this complication, and none of them had varicose veins of the leg. All my patients laboring under this disease were married and mothers. One of them was fifty years of age, but the others were between 35 and 45 years old. Sexual intercourse was not attended with any pain; in one case, the patient lived separate from her husband for eight years, not on account of the pain consequent on intercourse, but because a great increase of hemorrhage always ensued. In this latter respect, the practitioner must discriminate between this ulcer and “Cauliflower Excrescence” of the uterus, which being devoid of pain, and the hemorrhage coming on after intercourse might be mistaken for “*Varicose Ulcer*.” Though the bloody discharge is profuse, it is not offensive, differing in this particular from the bloody or sanious discharges of cancer and corroding ulcer. The treatment that I have found most useful has been the following:—rest in the horizontal position, the application of the pernitrate of mercury to the ulcerated surfaces and to the fissures already described, and after one or two applications of the escharotic, I have employed with great advantage, *tannin injections*, in the proportion of five grains of tannin to one ounce of water. I have used various other astringents, but as I did

not find any of them to arrest the bleeding so efficaciously as the tannin it is unnecessary to allude more particularly to them. Should the ulcers exhibit a sluggishness in healing, the use of nitrate of silver will hasten the process. Great attention must be paid to the state of the bowels, as any obstruction in them is calculated to produce venous congestion of the pelvic viscera. As the patient is generally much debilitated and anæmic when she applies for advice, I have found the use of iron and quinine highly beneficial, but if constipation be not present, I prefer the pernitrate of iron to all the other ferruginous preparations, as it acts remarkably well as an astringent as well as a chalybeate. Wine or malt liquors are always indicated when the circulation is languid, and the animal heat depressed, but if these complications be not present, the patient is as well without them.

APPENDIX.—I had the proofs of the foregoing paper before me, and had written some remarks upon the nature of the disease and the different methods of treating it, when our enterprising agent Mr. Dawson, sent us the last number of "*Ranking's Digest*," which reached me August 21st, and as the *London Medical Journal* has never appeared in Montreal, I am thus particular in noting these facts, lest some might suppose that the views put forward by me, were to a certain extent, plagiarisms from Mr. Gream's excellent paper, from which I have much pleasure in quoting the following passage, as it furnishes exactly the amount and nature of the information I had to communicate, with much more besides. I have met with the condition of the urethra that he describes. I cannot agree with him in believing that it is anatomically similar to the "*Vascular Tumour*" of Sir Charles Clarke. I believe it to be nothing more nor less than *Chronic urethritis*, for which no remedy is so good, (after the use of general antiphlogistic measures, &c.,) as the local application of nitrate of silver conveyed to the part by means of Lallemands' *porte caustique*, or the modification of that instrument which I have had made, and which is preferred, not merely by myself, but by many of my professional brethren, to the original instrument. If the practitioner should meet with a case of this disease, and not have a suitable instrument with which to apply the caustic, let him make a strong ointment of nitrate of silver, (30 grains to the ounce,) mixed with common lard, and rendered consistent by an addition of bees' wax—let him smear a common gum elastic bougie with this ointment, and having introduced it into the urethra, turn the bougie round a couple of times and he will thus have cauterized the urethra.

The reader will perceive that I have anticipated Mr. Gream in the use of the caustic ; the pernitrate of mercury possessing all the advan-

tages without any of the inconveniences of the nitric acid. If from the case I have put on record, which was the most severe I have met with, and appears to have been of a more serious character than any of those treated by Mr. Gream, and from the observations of that gentleman, many of which have forestalled those I intended to append, the reader should have obtained a more familiar acquaintance, with a rare, dangerous, and excessively distressing complaint, the object for which this article was penned will have been attained, so it matters little whether the observations of Mr. Gream have preceded mine or that mine have anticipated his, but for the character of the Montreal School of Medicine, I will assert, that every point in his paper has been frequently alluded to in my lectures, and illustrated in my practice.*

"Under the name of "Vascular Tumour of the Orifice of the Meatus Urinarius," this affection was first described by Sir Charles Clarke, in his valuable work on the "Diseases of Women;" a work giving evidence of the highly practical knowledge of that author, and which, although published more than thirty-five years ago, may still be considered as one of the best guides to the diagnosis of this class of maladies.

"He writes: "There is in most women a degree of projection round the orifice of the meatus urinarius, and from this part sometimes the tumour arises, to which the above name of the vascular tumour of the meatus urinarius has been applied." I have ventured to refer to this affection under another name, because my own experience, confirmed by that of others, tends to show that it does not always appear as a tumour, but that it may be present under other forms, accompanied by the same general as well as local symptoms.

"Dr. Ashwell has correctly described the disease, but he speaks of it more especially as a tumour, and states that it is rarely seen after the cessation of the menses. I am led to think that he is mistaken in this respect, for I have witnessed the disease as often in elderly women as in the young.

"Dr. Meigs, of Philadelphia, has alluded to the complaint in his volume on "Females and their Diseases;" but he merely refers to it as a portion of the lining membrane of the urethra, "hypertrophied and inflamed, which may be readily cut off." His observations, however, are contained in a very few lines, in which the importance of the disease is altogether overlooked.

*On Morbid Vascularity of the Lining Membrane of the Female Urethra. By GEORGE T. GREAM, M. D., late one of the Medical Officers to Queen Charlotte's Lying-in Hospital, (*London Journal of Medicine*, 1852.)

"The author is not aware that any other writers have noticed the affection at all ; but certainly none have regarded it with that consideration which it calls for, when we consider the suffering attending it, and its liability to return, unless properly treated and entirely removed. The fact that it is one of those diseases which do not frequently come under the notice of medical men, renders the circumstance of its being so little alluded to by authors especially remarkable.

"It presents itself under three different forms : the first, most likely, being the incipient stage of the second ; and the second, the beginning of the third. But this is only conjecture ; for the opportunity of proving it has not yet been afforded. It may be present as a simple vascularity of the lining membrane of the urethra, without any elevation whatever, extending some little distance towards the bladder ; the membrane itself being highly florid in colour, and extremely tender when touched, or during the passage of the urine. This is the usual character of the disease, when it is confined within the canal ; but Sir Charles Clarke relates the case of a patient in St. Bartholomew's Hospital, in whose urethra there was a tumour of a scarlet colour, nearly filling up the canal. The occurrence of a tumour, however, within the urethra is unusual.* This is probably owing to the pressure of the sides of the canal preventing the elevation of the dilated vessels, and to the passage of the urine having a similar effect.

"When the vascularity is within the urethra, no morbid appearances present themselves externally ; but if the symptoms call attention to the part and the lining membrane is exposed by making pressure around the meatus, the highly florid appearance will at once be detected.

"The second form in which the disease appears, is that of a flattened vascular spot, with but slight elevation, surrounding the orifice of the urethra, highly florid in colour, and exquisitely tender when touched : it is so little elevated that it can scarcely be called a tumour. The redness extends from it into the canal for some little distance, but the membrane within, although florid in appearance, is quite smooth on its surface ; whereas the external spot of vascularity is slightly granulated, because it is not modified by pressure from the sides of the urethra.

"In the third stage, the disease consists of a distinct tumour, granulated, and attached, sometimes by a broader base, sometimes by a narrow one, and, in some instances, even by a slender pedicle to the side of the urethra, or just externally to it ; and, in almost all cases, some

*The reader will remember that this constituted one of the peculiarities of my case. R. L. M.D.

dilated vessel will be seen extending from its base to within the urethral canal.

“ When there is an actual prominent tumour, the local pain and the constitutional symptoms are greatly increased in severity. In some cases, the peculiar scarlet colour of the part has attracted the notice of the patient ; but in many instances, particularly when the vascularity is within the urethra, not only has the actual seat of the disease escaped her observation, but it has also been overlooked by her medical attendant, who has referred to the uterus as the diseased organ, has stated that its cervix was inflamed or ulcerated, and caustic has sometimes for weeks, or months, been applied, without affording the least advantage to the patient.

“ This vascular disease is not at all to be considered as similar to an affection situated in the same parts, having its origin in a varicose state of the veins, which causes some uneasiness and is accompanied by a mucous discharge, but which does not produce the same acute suffering nor the great constitutional disturbance, nor is the appearance the same. In the vascular disease in question the blood contained in the vessels is arterial, while in the venous enlargement it is dark coloured, and the distended veins have the same appearance which veins have in other parts of the body when in a varicose condition.—Attention is first called to the vascular disease, by an uneasy sensation at the lower part of the body, and pain passing down the thighs ; and pain when urine is voided, or when the part is touched ; slight bleeding also occurs occasionally, owing to the rupture of some dilated vessel, whose covering is always much attenuated. There may be frequent desire to pass urine ; and walking causes great suffering ; while accompanying these symptoms, there is always copious mucous discharge, which is excessive when the disease appears in the form of a tumour. Owing to which, as well as to the constant uneasiness and frequent acute suffering, the patient becomes emaciated and weak, and it is surprising to find so many and such symptoms arising from a disease whose extent is confined within such limited bounds ; but there is clear evidence that it does not produce them in the fact that, immediately upon the destruction of the vascular spot, or even on its partial removal, a comparative freedom from the symptoms is at once enjoyed.

“ Upon a digital examination of the vagina being made, great tenderness is experienced by the patient at the vaginal orifice, and still more pressure is made towards the pubes ; and bleeding from this part almost always, be induced by the examination. These symptoms

necessarily call for further investigation and the nature of the disease becomes apparent.

“ The only mode of cure is the destruction of the entire congeries of vessels ; and if the smallest part of it is left, the disease will most certainly return. It has been customary to employ excision with scissors, and afterwards to apply potassa fusa, or to use the latter alone for the removal of the complaint. A ligature has also been recommended as a means of removal ; but there are objections to both these modes of treatment, which those who have used them will, the author thinks, confidently admit. In order that the scissors may be employed, the vagina must be held open by an assistant ; but the spot to be excised is so covered by the pubes that it cannot be sufficiently exposed to ensure the due performance of the operation, and the potassa fusa applied to the bleeding surface is effectual only in those cases in which the disease is very superficial, and by itself this caustic always fails to destroy the part entirely ; hence we have a return of the complaint, and a repetition of a most painful operation.

“ If the disease is within the urethra, these means of cure are totally inapplicable. If the ligature is employed, it may in some cases prove efficient ; but in others it would be impossible to effect a cure by means of it, as the part affected could not all be enclosed.

“ Having several times been called upon to treat cases which had been before apparently cured (by himself and others) by the means mentioned above, the author was led to think of another mode of treatment which would be more successful ; and it occurred to him that the application of strong nitric acid, in the manner adopted by Mr. Henry Lee* for the destruction of hæmorrhoids (and which proves so successful), would be equally applicable to the vascularity of the female urethra.

“ Sufficient time has now elapsed since its application in three instances, and yet there is not the least inclination to a return of the disease in them ; and as in others, although more recently treated, there is likewise no such disposition, the author is liable to speak with some confidence respecting this mode of cure. Its comparative advantages consists in the acid being minutely applicable to each individual part of the affected spot, which it has the power of entirely destroying, whether within the urethra or outside of it ; in its producing no fear in the patient as does the anticipation of an operation by a cutting in-

*The plan of treating hæmorrhoids by the application of nitric acid was first proposed by the late Dr. Houston of Dublin, and practiced, even before his publication appeared, by Mr. Cusack at Steven's Hospital, Mr. Henry Lee has no claim whatever to be considered the originator of this practice. R. L. M'D.

strument; and in the pain which it causes very quickly subsiding.—Dr. Ashwell observes: The main trouble we encounter in the treatment of these tumours, is their tendency to reappear. If they are snipped off with scissors, and the part allowed spontaneously to heal, there is every probability that it will repululate and cause the same symptoms. If these growths are not moveable and attached by a pedicle, I have found that the diligent application of nitrate of silver freely applied over and around them, will eventually get rid of them: but the process of destruction is tedious and attended *with great agony*.—It is generally, indeed, necessary to apply opium to the part after application, and to soothe the patient by some morphia or extract of hyoscyamus at night.” Now there is no such necessity after the application of nitric acid: but the patient complains of no pain after a few minutes have elapsed, and she is able to walk about without inconvenience.

“But there is a difficulty in exposing the part sufficiently, and in preventing the sides of the vagina from collapsing too soon after the application of nitric acid; and this is overcome by the use of a speculum, invented, the author believes, by Mr. Hilton, for the removal of hæmorrhoidal excrescences. A portion of the side of the speculum, extending nearly to its internal extremity, can be removed after its introduction into the vagina, and if this part of it is just under the pubes, the spot of vascularity will project into the tube; but should only the lining membrane of the urethra be vascular, it will be readily exposed by pressing the speculum firmly towards the pubes against the surrounding parts: and the acid can be applied while the pressure is kept up.

“A small rod of glass, or a piece of hard wood in the form of the stick of a camel’s hair pencil, is the best thing with which to apply the acid; and this should be held to the part for about a minute, care being taken that each enlarged portion of the vessels is completely destroyed, and in about three or four minutes the pain attending it ceases, and the speculum can be removed. It will be better to examine the part in about four days from the time of the application of the acid, and it often will be found healed, with no trace of the complaint left. More frequently it presents an unhealed sore, but an absence of the disease. If, however, there be any vessel remaining having the peculiar scarlet colour, it should be again touched with nitric acid, otherwise the symptoms will rapidly return.”

Acute Pericarditis. By A. H. DAVID, M. D., Lecturer on Practice of Medicine St. Lawrence School of Medicine, Physician to St. Patrick's Hospital, Montreal, and Member of Provincial Board of Examiners.

THE frequency of inflammation of the pericardium accompanying rheumatism is now generally acknowledged, and although slight attacks may escape observation, few persons suffer from severe attacks of rheumatism without having this membrane more or less inflamed, and there are few diseases more insidious and dangerous if neglected. The constitutional disturbance which accompanies the disease, and the nature of the organ engaged easily explain this.

According to late writers on rheumatic pericarditis we have two conditions of the system to overcome—one a coagulable condition of the blood, in which its fibrine is increased in quantity, and the other acute inflammation of the joints, never, or perhaps very seldom, going on to suppuration; therefore, the complication is supposed to depend on some specific connection between rheumatic inflammation of fibrous tissues, and the membrane surrounding the heart, which as yet we cannot correctly explain.

The principal causes of this disease are exposure to damp and cold, and therefore, those who are exposed to these causes are the most subject to be attacked by it, and nothing conduces as much to prevent cardiac complication in cases of rheumatism as close confinement to bed; this is an important remedial agent, and not used merely as a mode of rest—a late writer says:—confinement to bed in acute rheumatism tends, with its hot moist atmosphere to a free action of the cutaneous excretions, it brings the blood and its noxious contents to the surface, it derives from internal organs, and where there is a constricted condition of the secreting surfaces, it goes far in many cases to effect a salutary relaxation.

The cold rainy state of the weather, and the peculiar atmospheric condition of the spring, caused far more inflammatory diseases than had been met with for years in this city, and among those which fell under my notice were, several cases of pericarditis, and as all with the exception of the one I am about to relate, terminated favorably. I am induced to lay this one before the profession, from its having presented many points of interest, and the *post mortem* revealing an amount of disease of both the heart and pericardium exceeding, I have reason to believe any thing of the kind on record.

I have to regret that I cannot give the details of this interesting case in full, having had ample notes of it taken daily by my clinical clerk, but as in the late terrible conflagration which destroyed near a third

of our city, the St. Patrick's Hospital was consumed, my case book, containing the notes not only of this, but of many other highly interesting and instructive cases, was lost. I have to trust entirely to memory and the *admission* and *prescription* books for the meagre details I am enabled to give :—

Moses Mitchell, a colored man, of short, athletic make, aged 42—Cook, was admitted into the St. Patrick's Hospital on the evening of the 26th March last, laboring under a severe and well marked attack of pleuritis; he stated he had been ill for about ten days, with acute rheumatism, from exposure in travelling, that he had taken several doses of salts, as well as a couple of ounces of spirits of turpentine, which had been recommended to him as a specific in rheumatism, but that he had become much worse after taking this last medicine, and that for the last twenty-four hours he had been unable to rest, cough or take his breath from the increasing pain in his side. He was bled copiously twice, and put on calomel and opium, under which treatment he soon got better, when the rheumatic symptoms, which on his admission had left him, returned with great violence, nearly every one of the large joints in his body being affected. I then ordered four ounces of lime juice to be given him every four hours, and in three or four days he was quite relieved, the pains had left him, and all swelling of the joints had disappeared, and he was pronounced convalescent, and went on improving, for two or three days, till having occasion to go to the water closet during the night, he did so without taking the precaution of putting on any clothes, and on his return to bed was seized with a shivering fit which lasted two hours or more, and at my visit the next day I found him laboring under a second attack of pleurisy, for which he was treated as in the first attack, with the exception that he was cupped instead of being bled and soon got over it when during examination before

nd on the right side, (the side tuated,) diminished, the heart in the first sound, which had peculiar "to and fro sound," f the left nipple, between the on respiration or pressure. and put on the usual calomel um, but all without avail, and

after death, there were strong quantity of thick turbid effusion, the heart perfectly white from

the enormous quantity of deposit on them, and exactly as if they were pieces of tripe. The pericardium was not adherent to the heart, but was filled with over 8 ounces of straw colored serum, and the heart itself was much enlarged, on removing it from the body, and washing it well it was found to weigh 46 ounces and a half, and measured in circumference $15\frac{1}{2}$ inches and in length 6 inches.

As I believe, this is the largest heart on record, I place these meagre details before the profession, more for the purpose of showing how insidiously so extensive a disease can run its course, than for any other reason. At the same time a few remarks on the general treatment of pericarditis may be allowed me, as much discussion has been produced on the subject. Some writers trusting entirely to antiphlogistic remedies, and others to mercury. In the case just related both failed, although in general I have found them to succeed, as I never trust to either alone, but combine with local bleeding, by cupping and mercury sufficient to affect the mouth is what I have found the safest and best treatment.

Dr. John Taylor, who is no slight authority, does not seem to entertain the same opinion of the efficacy of mercury that most other writers do. While Dr. Lathan says, "allowing bleeding and antiphlogistic measures to be needful, and even indispensable, I am fully persuaded that let them do all they can, mercury can do something more—something towards saving life and inducing reparation, which nothing else can do so well. Of this there is as satisfactory evidence as we have of most points in practical medicine, which are thought settled." As far as my experience goes, it corresponds with that of Dr. Lathan. Dr. L. recommending both bleeding and mercury.

As before said, pericarditis is a very serious and fatal disease, particularly when as in this case, it is complicated with intense endocarditis; and there is no doubt but that the principal danger arises more from the complication than from the pericarditis itself, as nearly all cases of simple pericarditis, soon will yield to local bleeding and mercury.

It will be observed that other remedies in addition to the cups and mercury were used in this case during its course, purging, blistering, and colchicum, but all with only temporary benefit, as the disease had advanced so far before the patient came under treatment, that all were without avail, and he gradually succumbed.

Case of Latent Aneurism of the Thoracic Aorta, complicated with Oxaluria. By ARCHIBALD HALL, M. D., Lecturer on Materia Medica, McGill College; and R. L. MACDONNELL, Surgeon to St. Patrick's Hospital, Lecturer on Surgery, St. Lawrence School of Medicine.

THE subject of the following case was Mr. D. S., a young gentleman, brought up as a merchant, and in business for himself, aged about 23 years. He had been an occasional patient of mine, as the medical attendant of his family for years, but he had required no professional assistance at my hands since April 1851, when I attended him after his return from a voyage to England, in consequence of a severe sprain of his ankle, received on board the steamer in which he crossed the Atlantic. He again consulted me on the 24th February 1852, laboring under the following array of symptoms:—There was a peculiar anæmic appearance of the countenance with low spirits, and he manifested considerable anxiety about himself, expressing his own apprehension that his disease would terminate in consumption. His appetite was a good deal weakened; there was considerable pain in the region of the stomach, felt nearly equally when it was empty or replete. He was much troubled with eructations. In the lumbar region there existed a dull, heavy pain, which frequently incapacitated him from active exertion, and disposed him to inactivity, which was the reverse of his character. There was nothing remarkable about the urinary organs, the secretion coming off in normal quantity, and unattended with any evidence of irritability of the bladder. The bowels were regular, and the evacuations of natural color. His pulse was perfectly natural, and the temperature of the skin normal. I should observe that he was emphatically of slender physical conformation, and was rather emaciated at the time I first saw him. He informed me that the symptoms under which he labored had existed for several months, and I incidently learned that his friends had experienced considerable uneasiness about

medical gentleman of this city, who
 and was subsequently induced to
 pulist, whose doses, as might have
 sum amount of benefit. Suspect-
 and unable to detect the slightest
 disease, I requested him to furnish
 ed the following morning.
 fine this day, its specific gravity
 and to be 1.016. It was of a pale
 and nothing remarkable, except its

acid reaction. A portion was poured into a test glass, and set aside for microscopic examination.

26th Feb. This evening a distinct deposit occupied the lower portion of the test glass, vesical mucus being supernatant. The clear portion having been passed off, and the mucus removed as much as possible by a pipette, a drop of the residue was transferred to a glass slide which was placed in the field of the microscope. It exhibited crystals of amorphous lithates of ammonia, numerous octahedral crystals of oxalate of lime, with abundance of epithelial cells. The oxalate of lime crystals were developed without the application of heat.

27th Feb. The nature of the case thus apparently closely determined, attention was directed to the digestive organs, whose assimilative functions were apparently much disturbed. Having learned his proneness to sweet articles of diet, these were forbidden, and a plain diet, consisting essentially of meat, and the blandest, and least flatulent vegetables enjoined. He was permitted the use of a small quantity of brandy and water at his dinner, and at other times, when the pain of the stomach proved severe. Wine and beer were forbidden. The remedial treatment consisted in the exhibition of a mixture of nitro-muriatic acid, five minims, tincture of columbo one drachm, and pepper-mint water, one ounce, to be taken three times a day. A stimulant embrocation was also prescribed to be applied to the epigastric and lumbar regions every evening.

In the course of a fortnight under this treatment, he had decidedly improved in health and strength, and on the 5th April, he discontinued my attendance, feeling, as he expressed himself, "perfectly well." In a memorandum of this date I find that on examination of his urine, no oxalate of lime was detectable, even after heating a small portion on a watch glass.

On the 8th of May I was again requested to visit Mr. S. At this interview, I learned that he had a short time previously to my visit, returned from a business tour in Upper Canada, during which his health continued in the same improved condition, and that compelled to remain a day or two at the Coteau du Lac, he occupied one night a bed placed transversely opposite a window, and that, in consequence of a current of air playing upon his back, he conceived that he had contracted rheumatism, involving the lumbar muscles. I found him seated on a sofa, complaining of considerable pain in the lumbar region, which was also painful to the touch, and prevented bodily movements. There were no other marked symptoms about him, with the exception of a rather anxious expression of countenance which had again assumed its original cachetic appearance, and some pains of an apparently cardialgic

nature. The pulse was of ordinary character, and there was also complete absence of all symptoms of a febrile nature. On questioning him with regard to the urinary secretion, he informed me that it was of normal quantity, and as far as he could judge, of healthy appearance. I requested a small quantity for microscopic examination, and with the exception of a stimulating liniment, to be well rubbed into his loins, and a Dover's powder to be given at bed time, I reserved the further treatment of the case until the quality of the urine was determined.

On the subsequent day I was supplied with a phial of the urine passed that morning. Its sp. gr. ascertained shortly after receiving it, was found to be 1.018, ambre colored, and presenting decided acid reaction. This water, examined on the morning of the 10th, afforded innumerable octahedral crystals of oxalate of lime, with abundance of epithelial cells. I could not now debar myself from again considering the case one of oxaluria, yet the evidence of lumbar rheumatism being now so marked, and Mr S. suffering such acute pain, even on the slightest motion, in the lumbar region, that I felt myself compelled to direct active remedial measures to this, the now more prominent affection. The ordinary treatment of lumbago was accordingly adopted, and steadily pursued.

On the 18th of the month, there was little amelioration of the disease, and Mr. S. requested me, by note, to call in, in consultation, Dr. MacDonnell, who accordingly visited him with me on that day. At this visit Dr. MacDonnell concurring in the same view of the case which I took, carried out the same principle of treatment.

On the 23rd, finding that the symptoms had not yielded in the slightest degree, I called on Dr. MacDonnell to visit him again with me. The lumbar pain still continued of dull, heavy character; but superadded to this, there had supervened acute deep-seated pain in the left iliac region; extending to the testicle of that side; the pulse of normal beat, although weak, dryness but no heat of skin, the same difficulty of motion, and the same tenderness on pressure in the lumbar region, extended now to the iliac, and felt only on hard pressure in the iliac fossa thus demonstrating its deep-seatedness; the anxiety of countenance was more marked, and he expressed himself as feeling decidedly weaker, and no better. Under the impression that there did exist some deep seated inflammation, of a subacute character, in the left iliac fossa, it was accordingly resolved to apply leeches to that region, and twelve were put on that evening. While performing this operation, I received a hurried call to visit a lady whom I had attended that morning, and having hastily removed four or five of the leeches which had not fallen off, and covered the part with cotton wadding, I left. About midnight I was called to revisit Mr. S. I learned that he had had several attacks of syncope, and when seen by me, was

extremely weak and prostrated, so much so, as to require stimulants to be exhibited, which were given in the form of wine and brandy. The leech bites had bled freely, but not to any unusual extent, yet the effect produced was quite disproportionate to the actual loss of blood. The bleeding was, however, instantly arrested by the application of lunar caustic.

On the 23rd, Dr. MacDonnell met me again in consultation, and we found it still necessary to continue the exhibition of stimulants in consequence of the debilitated condition of the patient, syncope supervening upon the slightest exertion.

On the 24th, some fullness was perceived in the left iliac region, with increased tenderness on pressure, and the part was covered by a blister.

On the 27th, the fullness was more marked as well as the tenderness, the former having much the feeling of a solid tumour in the fossa. The other symptoms continued the same, but the patient became decidedly weaker. The wine passed the preceding day was examined and found still oxalic.

28th, 9 A. M., patient evidently sinking. Dr. Sutherland was now called in. The tumour in the left iliac region was more prominent, and was now for the first time felt to pulsate. Mr. S. continued sinking until death occurred early in the afternoon of the same day.

On the morning of the 19th, the post mortem examination was held. Its details I leave to Dr. MacDonnell, who most skillfully performed the dissection, with such reflections as the case, considered as a whole, seems to merit. To avoid prolixity I have given a résumé of the case, rather than the details, either of minute symptoms or treatment. I have detailed the chief features, (those only interesting to the intelligent practitioner,) which characterized an obscure, and totally unsuspected disease, which must have been of long standing; and the case demonstrates a diagnostic error under most peculiar circumstances.—A. H., M. D.

Post Mortem Examination. 12 hours after death. When I entered the room in which the body lay, I found that the abdomen had been opened, and the first object that attracted my attention, was a large, black looking mass which occupied the left lumbar region, completely filling it up and extending forwards to near the mesial line, having the sigmoid flexure of the colon lying on its right side, which it had pushed out of its place. It was smooth on its surface, covered with peritoneum, and measured sixteen inches in length, and as near as we could ascertain, was about fourteen inches in circumference at its middle portion. It was composed of firmly coagulated blood, which had evidently escaped recently from some large vessel, and imbedded itself under the peritoneum, and under the descending colon. On other examination we traced the coagulum into the pelvis, where it was found to be

peritoneum from the iliacus and psoas muscles, and dissected it off the obturator internus and levator ani of the left side, the ureter and iliac vessels were stretched over its surface, and it encroached upon the situation of the bladder and rectum. Its upper portion passed between the crura of the diaphragm. Supposing that this immense mass of blood had escaped from a rupture or ulcerated opening, either in the renal artery or one of the mesenteric branches, or the abdominal aorta, we carefully examined these vessels even to their minute ramifications, but could not detect any source for the hemorrhage. The kidney was dislodged from its situation, and lay in the centre of the clot, just like the stone in the centre of a large peach, on every side it was surrounded, or rather suspended by the coagulated blood. It was quite healthy in its structure, as was also the opposite one. The abdominal aorta and its large branches were next examined and found healthy, and we were almost inclined to abandon the dissection, when we discovered some roughness of the spinal column on passing the finger through the aortic opening in the diaphragm, and then we ascertained that this roughness was the result of erosion of the bones, caused by a small aneurismal sac, which sprung from the posterior part of the vessel, opposite the tenth and eleventh dorsal vertebrae, exactly in that portion when it gets a covering from the crura of the diaphragm, and which may be considered as a neutral region between the abdomen and thorax. The sac was not very strong, it was about the size of a turkey egg, and communicated with the vessel by a round opening about half an inch in diameter; it had concentric laminae attached to its walls, but they were less numerous in the inferior portion of the sac, where the blood had escaped through a rent about a quarter of an inch long, and the artery and sac being both so compressed by surrounding structures, the hemorrhage was kept in control, and gradually and insidiously filtered through the subserous areolar tissue, dissecting the membrane from the muscles, and pressing the organs out of their normal situations. The other viscera were all healthy. As is usual, the intervertebral cartilages were not affected by the process of erosion.

The foregoing case presents many features of interest in a pathological and diagnostic point of view, upon which a few remarks may not be out of place, and first I will allude to the very unusual situation of the aneurism. If we take the statements of some pathologists, the exposure to dilatation from the current of blood, as at the arch of the aorta, the mobility of the part, and its exposure to injury, as in the popliteal and subclavian, afford satisfactory explanations for the great tendency these vessels display in becoming the seat of aneurism, and the same cause is

assigned for the formation of the disease in any of the vessels of the extremities. But a situation could hardly be discovered where a vessel is so securely lodged as in the foregoing instance:—where there is a special provision made, by the tendinous interlacement of the crura of the diaphragm, to protect the vessel against injury, and prevent its being pressed upon by the frequent contractions of that important muscle. It is also remarkable, that contrary to the ordinary course of thoracic aneurism, the disease here sprung from the back part of the vessel, which accounts for the absence of many of the symptoms which usually denote the existence of the disease. These symptoms may be referred to two classes. 1st. Those arising from the pressure of a tumour on important organs; 2nd. Those depending on the nervous communications between organs; the first are *mechanical*, the second *neuralgic*. Let us inquire if the absence of these symptoms can be accounted for by the size, situation, and the direction of its growth. The anatomist will readily perceive that from the locality of the tumour it could not have produced the more prominent and characteristic symptoms of thoracic aneurism, such as dyspnoea, stridor, dysphagia, feebleness in the strength of the respiration in one lung as compared with the other; aneurismal cough, aphonia, &c. Whilst the neuralgic symptoms depending upon pressure of the large nerves, whose branches communicate with those of the neck and chest, were, for the same reason, absent, and it is a singular fact, in this obscure case, that those symptoms which usually follow erosion of the spinal column, were likewise wanting. On this point I made particular inquiry when I first visited the patient, and ascertained that he had never suffered from racking pains shooting up and down the spinal column, and that he had only very recently experienced *dull constant aching pain*, which was never combined with those of an acute lancinating character, which some writers as Professor Law,* have stated to be pathognomonic of this disease, but which my own experience has proved to be common to other tumours pressing upon the spine as was, indeed, shown many years ago by my friend Dr. Battersby, of Dublin,† that dull pain about the kidney increased by pressure. The absence of rigor of true spasmodic intermitting pains in the ureter, tended also to embarrass the diagnosis, and though we were convinced on the last day, of a pulsation in the tumour, not before manifest, the history of the case, the *gradual* sinking of the patient, the want of aneurismal symptoms, and the *rapid formation of a growth* occupying the whole of the lumbar region, did not countenance the idea of an aneurism, and pointed out rather to a sudden formation of matter around the kidney, which

* Dublin Journal of Medical Science, vol. xiii.

† Dublin Journal of Medical Science, vol. xxiv.

received an impulse from the aorta, thus accounting for its pulsation. It was not until the blood had escaped under the diaphragm, and that the tumour became *abdominal* that pressure signs manifested themselves, and these were more calculated to direct attention to the kidney, whose function was known to be already impaired, than to throw light upon the nature of the malady. These symptoms were, the presence of an obscure swelling in the left renal region which gradually increased and gave rise to a pain not only in the spot, but to neuralgic pains, shooting to the testicle with some degree of re-action of that organ and constant dull pains about the kidney increased by pressure. I need hardly mention that the mode of rupture, and the manner in which the blood escaped are both very unusual. The bursting of an internal aneurism is but too rapidly fatal to need comment, but it is strange that so slight and emaciated an individual could lose, a quantity of blood, capable of forming a tumour sixteen inches long, and fourteen in circumference without instant, or at least, almost instant death occurring, yet this patient survived seven days, though we cannot, with accuracy, determine the exact moment when the sac gave way, blood being pumped out at each stroke of the heart, probably during the whole time. The formation of the large coagulum, though an ineffectual effort of nature to arrest the hemorrhage, no doubt did materially retard it. It will be readily granted, that a young man of active and abstemious habits, who was accustomed to cross the Atlantic every year, besides travelling a great deal every summer on business tours through Canada, and who never complained of more than some obscure lumbar pain, which usually disappeared on the application of an anodyne liniment, and who was, moreover, the subject of oxaluria, the physician could hardly have suspected to have been the victim of such a disease as aneurism, particularly as the signs of oxaluria were so manifest, and so capable of accounting for all the phenomena, whilst those of aneurism were completely absent.

R. L. M. D.

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Hemorrhage after parturition.

October, 45, primipara, on the 31 lubricated, but the os uteri very to arise from sympathy with the used a dose of castor oil and laudanum. The next day true labour

pains set in, but, the *os uteri* was very unyielding. I was very particular in my examination, and received from her the following information:—shortly after quickening, she fell through a trap door into the cellar, and hurt her left side materially, from that time until I was called to visit her, she continually complained of tenderness upon pressure in the left iliac region. The *os uteri* being so unyielding, I used the lancet, and administered tartar emetic, but without producing the usual effects. On the following morning, I used the tartar emetic, in gr. 4 doses, until such time as it produced vomiting, considerable dilatation of the *os uteri* followed, but not sufficient to answer the object required. About 3 o'clock P. M., the pains became very severe, and continued so until about 3 A. M., when the liquor amnii came away. After the escape of the liquor amnii, the pains left her entirely, I waited 2 hours for their return, but they did not return, I examined her vaginam, and found the *os uteri* well dilated, but the uterus appeared to be in a state of atony. I then used the *secale cornutum*. The pains returned in about an hour, and in 2 hours afterwards she was delivered of a living female child. In about 20 minutes after her delivery, she complained of slight after pains, which I hoped would expel the placenta, but suddenly a violent hemorrhage set in. I introduced my hand into the uterus, and found the placenta partially separated and partially adherent. My suspicions were then awakened and I dreaded the result of the injury previously received. I detached as much of the placenta as possible, and the uterus contracted and expelled both my hand and all the placenta excepting about the size of an American half dollar, (which I could not detach) I applied the bandage as usual and watched the uterus carefully. For 24 hours she appeared perfectly comfortable, the lochial discharge was regular, and there were even symptoms of the secretion of milk. The next evening I was called upon suddenly to visit her again, I went, and to my surprise, found the uterus (which was not larger than my hand when I left her) easily to be felt in the umbilical region, and even in the epigastric. The cause of this was no doubt the removal of the bandages by the old women, and the administration of certain *cure-all's*, during my absence. I employed friction and 2 or 3 clots were discharged, after their being discharged, I endeavoured to procure contraction of the uterus, which was of no use whatever for the *os uteri* was firmly contracted, and it was impossible to dilate it. I administered the ergot of rye and sugar of lead, but she expired before they had time to effect the purpose for which they were given. The friends objected to a Post Mortem examination, but I found by an external examination that the uterus was fully the size it was before the birth of the child.

ART. XXXVII.—Review of “a few observations on Dr. Howard’s Lecture by Medicus.” By R. P. HOWARD, M.D., &c.

THE above “observations” professedly written, only lest the medical student should be misinformed or led into “error” by the teachings of the lecture alluded to, require, in this point of view, some examination, though it may be shown to be highly probable that the author of the “observations” was influenced by some other motive besides. Thus let me examine the opening criticism, in which, after quoting a part of my diagnosis as follows :

“‘No disease of the aortic valves ; *possibly* disease of the mitral, obstructive rather than regurgitant; or, *perhaps*, softening or weakness of the heart.’” Medicus answers, “the only portion of this clause verified by the subsequent *post mortem*, was “no disease of the aortic valves.”” Now do not the words “*possibly*,” or, “*perhaps*,” clearly intimate that on this point there was *then* doubt in my mind : and is it not plainly stated farther on that at that stage of the case “I was at a loss how to decide, and could not confidently say which” of those conditions obtained ? Why does Medicus omit to notice the following passage in the lecture which shews that the doubt felt on the 17th, was removed on the 21st ?

“Four days after the commencement of the treatment, some important changes, you may remember, were accorded in the physical signs, which threw additional light on the case. The heart’s sounds had become more distinct, and more extensively audible, and the first had less of its sharp clapping character, while the rythm was restored and the pulse had regained its regularity. And now you can perceive the value of repeated examination. The restoration of regularity to the heart’s rythm, and to the pulse, was incompatible with much mitral obstruction ; softening of the heart to an extent capable of rendering the pulse so weak and intermitting as it was here, could not have been cured in four days : so that the only supposition upon which the progress of the case could be explained was, that the urgent dyspnœa and pulmonery obstruction so embarrassed the heart as to overpower it—to render it temporarily weak.”

Is not the existence of mitral obstruction and softening excluded here ? And does not the history of the cadaveric examination confirm this opinion ? Why then does the impartial critic say, “the mitral valves were found quite healthy, and instead of softening of the muscular structure of the organ, the walls of the ventricle were found “firm and red;”” intimating that such a condition was quite opposed to my anticipations ?

Again, what induces the writer of the "observations," towards their close, to drag forward the fact that, "there was an adherent pericardium which was not diagnosed," when the following passage occurs in the lecture itself? "But it, (speaking of the post mortem examination,) also revealed a condition which was not expected—which had not indeed been thought of; viz.: universal adhesion of the pericardium to the heart." Does he mean that the condition in question ought to have been diagnosed under the circumstances of the case? Or even that it generally can be ascertained during life in all uncomplicated cases?

But to proceed with the "observations." Medicus says, "I must confess to a complete ignorance of any pathological condition of the heart termed 'weakness of the heart.'" I have read somewhat of Cardiac pathology, but in no author that I have had access to, have I found any notice taken of a morbid state to which such a denomination has been given." For the employment of the terms "weakness of the heart," "weak heart," "debilitated heart," I beg to refer to the following eminent writers on cardiac diseases, Law, Latham, Walsh, Blakiston and Ormerod; their authority may excuse my using similar terms.

While I admit the right of the critic to "take objection to" anything in a lecture calculated "to perplex or mislead the student." I cannot allow any erroneous statement in that objection to pass unnoticed, more especially when the paragraph objected to, in my opinion, is not calculated to perplex or mislead. "Fatty degeneration of the heart," says the observer, "is treated by all modern writers on heart disease in distinct terms, and is never associated, as a cause, with the pathological state treated of under the name of 'softening.'" Now in Dr. Blakiston's late work on "diseases of the chest," (p. 198,) fatty degeneration of the heart is described as a cause of softening of the organ.

The reason why I "omitted to notice," "violent and continued vomiting" as a "sign of polypus of the heart of *great diagnostic value*" is, that I do not regard it in that light. The only modern authority presented to my recollection, who mentions "nausea and vomiting" among the symptoms of polypus is Hope, and he lays no stress on the point; and farther, these symptoms are but too common inconveniences in many forms of severe cardiac disease.

Medicus attempts to show that "the second part of the diagnosis" was incorrect. But had he reflected (not to say read) more, he might have arrived at a more charitable explanation of how "dilatation" of the heart could exist, although at the opening of the body the organ was found "closed by rigor mortis," than that I "felt myself bound

by my conviction to assert its presence." When the heart was examined after having been kept a few days in spirits, the dilatation was manifest, and when writing out an accurate statement of its condition, that fact, as well as its weight and dimensions, was recorded with the appearances previously noted at the autopsy. Fortunately, too, the heart concerning whose dilatation Medicus entertains "serious doubt," is still in my possession, and has been examined by several medical friends. If then I am correct in stating that "dilatation of the right ventricle" existed, and that the right auriculo-ventricular orifice measured 5 inches in circumference, it is plain that "slight regurgitation" through that orifice might occur, would almost necessarily occur, as the patient suffered greatly from dyspnoea. Hence, on this point too, the diagnosis was correct.

Lastly, the "observations" respecting "enlarged jugular veins," are founded upon a misapprehension of the passage alluded to. It does not state that Dr. Blakiston established "enlarged jugular veins" to be a "sign of a dilated right cavity;" no one who had ever read the book invariably consulted by students of auscultation could be ignorant of "Laennec's" allusion to "Lancisi" as the discoverer of the connexion between a "swollen state of the jugulars" and dilatation of the right ventricle, and of his own adhesion to Lancisi's view notwithstanding the dissent of his "illustrious" teacher "Corvisart;" but it says "*the general dropsy and enlarged jugular veins pointed to tricuspid regurgitation as established by Dr. Blakiston, &c.,*" which is quite another thing.

In conclusion, it may not be contrary to the "laws of criticism" or professional etiquette to advise Medicus, when commenting upon the writings of others, to adopt the practice which he has so thoughtfully urged upon me, and let every statement be concise and rigidly correct."

Montreal, August 23, 1852.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

PIRRIE'S SYSTEM OF SURGERY.—In the last number of this Journal we noticed in a few words the receipt of this excellent treatise. Since then, we have made ourselves more intimately acquainted with its details, and can now pronounce it to be one of the best treatises on surgery in the English language. It does not profess to treat upon every disease, consequently is not so complete as some others, but what it does touch upon, is discussed, in a clear and satisfactory manner. We were par-

ticularly pleased with Professor Pirrie's chapters on dislocations and fractures, and quotes the following passages as a sample of his method of imparting instruction :—

Treatment of the three classes of Fractures of the Forearm.

"The treatment of all these fractures of the forearm consists of two parts; the procuring and maintaining coaptation." This is procured by bending the forearm at right angles to the arm, and placing the hand midway between pronation and supination; then using slight extension, if necessary, and pushing back the protruded muscles between the bones. To maintain coaptation, we must call in the aid of both attitude and mechanism.

"*Attitude.*—In each class of fractures the forearm ought always to be at a right angle with the arm, that the muscles of the arm may be uniformly relaxed; and the hand ought to be placed midway between pronation and supination, that is, with the thumb upwards and the little finger downwards. If this be neglected, the fractured portions will unite, so as to form an angle with each other; and the consequence will be the loss of the power of supination, if the hand be kept in a state of pronation, and if the power of pronation, if it supinated. The only variation of attitude in the different classes of fractures is in the relative position of the hand and the long axis of the forearm; in fractures of both bones the long axis of the hand should be in a line with the long axis of the forearm; in fractures of the radius, the hand should be depressed; and in fractures of the ulna slightly elevated.

"The object aimed at in these peculiarities of position is to prevent the diminution of the interosseous space; which is accomplished, in fracture of both bones, by uniformly extending the muscles connected with the radius and ulna; in fracture of the radius, by extending the muscles attached to the outer side of the radius, and in fracture of the ulna by the extension of those on the inner part of the bone, and these conditions of the muscles are produced by the above described attitudes of the hand. The following directions exhibit at one view the attitudes to be observed :—

1. "Bend the forearm *at a right angle* with the arm.
2. "Keep the hand midway between pronation and supination.
3. "In fractures of both bones, *keep the hand in a line with the long axis of the forearm.*
4. "In fractures of the radius *depress the hand.*
5. "In fractures of the ulna *raise the hand.*

"*Mechanism.*—Various appliances have been used to preserve the parts at rest, and in apposition. Some surgeons use paste-board splints,

softened in hot water, and then moulded to the forearm ; some employ splints composed of several parallel pieces of wood sewed together by a piece of linen or leather, while others make use of wooden splints, slightly concave on one side and convex on the other.

“ Baron Boyer recommends that a small oblong pad should be applied between the concave surface of each splint and the forearm, in order more effectually to press in the muscles, and to preserve the interosseous space. But if the splints be applied closely, the pressure in the direction of the antero-posterior diameter will be sufficient ; nor will any padding be requisite, except a little cotton to prevent the pressure from irritating the skin. In fracture of a single bone the splints should extend only to the wrist ; but when both bones are broken, one of the splints should reach to the finger, that the hand may be kept in a line with the long axis of the forearm ; the longer is usually applied to the front of the forearm.

“ To preserve the mechanism in its proper situation, various means have been employed. The common roller and starch-bandage are both objectionable, in as much as they tend, by pressing the radius and ulna together, to diminish the interosseous space, besides which they keep up a degree of heat about the part, and create trouble in taking off the splints, which must occasionally be done to ascertain whether the part presents the desired appearance. The loop-bandage is not liable to the same objections, but the most convenient and elegant manner of treating these fractures is to use the wooden splints, retaining them in the proper position by the buckle. Two or three may be used, and the forearm should be kept in a sling.

“ Direction as to mechanism :—

“1st. In fractures of one bone, apply two splints of equal length, not extending beyond the wrist.

“2nd. In fractures of both bones, use two splints of unequal length, the larger being applied to the front of the forearm, and reaching to the ends of the finger ; the other need not be extended beyond the wrist.

“ The objects aimed at by treatment in these fractures are to obtain coaptation, to preserve the interosseous space, and to keep the parts at rest in a proper position.

“ For the attainment of these ends, attitude and mechanism are both necessary ; the former should be used from the very beginning of treatment ; but the application of mechanism should be delayed until either the danger of inflammation supervening is over, or the inflammation, if it has already taken place, has been subdued.” p. 133.

In conclusion we recommend very strongly this excellent work, both to the practitioner and student.

SCIENTIFIC INTELLIGENCE.

ANATOMY AND PHYSIOLOGY.

On the Molecular Origin of the Tissues. By Dr. BENNETT.

THE great generalisation of Schwann was that all tissues are derived from cells. Subsequently, it was ascertained that the nucleus, or cell-germ, exercised an influence on the tissues, independent of its cell wall; and it was endeavoured to be shown, that some tissues might be derived directly from nuclei. The object of this communication was to point out that the nuclei themselves originated from smaller bodies—viz., molecules; that these were the origin of every texture; and to indicate some of the laws which governed their formation, arrangement, and subsequent development. From a review of the observations of Schleiden, Schwann, and Martin Barry, the author pointed out how the first appearance, observable in all developing organisms, was a mass of molecules and granules, which, by aggregating or melting together, constituted the cell germ. Around the cell germ other molecules were formed, which again, by melting together, constituted the cell wall. Further development, in like manner, proceeded by the apposition of molecules. At any period in the process of evolution, the onward progress might be checked when the structure became disintegrated in the inverse manner to its formation: First, the cell wall became dissolved, then the nucleus, both of which were reduced, first to molecules, then to a fluid. Hence there were molecules of evolution and molecules of disintegration. Occasionally, between the cell wall and nucleus, secondary molecules were formed, which constituted peculiar secretions, as they have been termed: these might be called molecules of transformation. The author described the origin and mode of formation of these three kinds of molecules, their physiological and pathological importance, and pointed out the advance which had been made in our knowledge of molecular formation by the observations of Ascherson, Harting, and Melsen. In complex organisms, the higher tissues were formed by an elaboration of blastema, mainly due to the successive evolution, transformation, and disintegration of matter, by means of the three different kinds of molecules, of which the author gave numerous examples, derived from the elaboration of the ovum, of the blood, the transformation of insects, the process of metamorphosis in the lower animal forms, &c. He pointed out that the same process sometimes

physical, as in the case of Brown's molecular movements, at other times vital, as seen in many organisms. That occasionally we had molecular fibres, from the aggregation end to end of molecules, in the same way as we have nuclear cell fibres. Moreover, each kind of fibre could assume inherent contractility, as in the case of vibriones, which might be called contractile molecular fibres, as spermatozoa might be denominated contractile nuclear, and cilia contractile cell fibres. The author concluded a lengthy communication by remarking, that not only did a study of the molecular element indicate the origin and development of healthy and morbid product, but it pointed out the basis on which a rational treatment was to be founded, as far as diseases of nutrition was concerned. Thus in tubercular diseases, where molecules of evolution were deficient from absence of the fatty element in the chyle, animal oils were indicated to favour the production of such molecules. When the blood was diseased, in cases of gout, rheumatism, rachitis, scurvy, &c., such morbid conditions could only be removed by the introduction of substances which either directly or indirectly, physically or chemically, favoured the production of certain molecules of transformation, as those in the blood; and when any of the tissues seem redundant and hypertrophied, tumours constituted the morbid condition; thus the cure would depend on the discovery of those means, whereby granules of disintegration might be induced and subsequently eliminated.

On Pathological Cell Development.

DR. GAIRDNER made a verbal communication of considerable length, on certain peculiarities of pathological and other structures, as bearing on the different theories of cell development. He considered the cell theory of Schleiden and Schwann, although it led to the discovery of many interesting facts, and really important morphological generalizations, to have been utterly overthrown, as a general theory of development, by the progress of scientific inquiry. The "cell" of these physiologists, so far from having the fixed and uniform character of a basic type of form, was the most fluctuating and uncertain of all morphological creations. Its form, size, law of development, were either confessedly uncertain, or had to be stated in terms so vague as to lead to the conclusion that form and substance, and perhaps microscopic size, were the only attributes essential to the idea of a cell. No one could tell, in practice, what was a cell wall and what was a nucleus, and no one could give a satisfactory theoretical definition of either, or resolve,

for all cases, which of the two preceded the other in the course of development. The theory of "germinal centres," held by Mr. Goodsir, in so far as it ascribed to certain "nucleated particles" the function of the cell, was, in Dr. Gairdner's opinion, subject, in like manner, to the imputation either of vagueness or of want of comprehensiveness. If these nucleated particles came under any more precise definition than was applicable to every kind of organic or inorganic structural atom, it would be very difficult to show that they monopolised and centralised the whole functional activity of the organism, or were more necessary than other parts to its growth and preservation. He (Dr. Gairdner) believed that there was no distinction in the organism of passive and active atoms, and considered every point and every molecule as endowed with its own life, and placed, in its own peculiar sphere of activity, in harmony with the rest. He agreed with Dr. Bennett in thinking, that many tissues arose from elements far more minute than any to which the term cell or nucleus had been applied; indeed, he was far from thinking, that our microscopes had conducted us back to the real germs of the tissues, and considered that the structural, like the chemical atom, still lay in the remote region of hypothesis. He firmly believed, however, in these hypothetical germs, and could not conceive of the tissues being formed by anything like what the Epicureans would have called a concourse of atoms, according to their physical and chemical properties. Hence he did not think, that by the mere introduction of peculiar molecular elements into the food, we could either create new tissues or destroy old ones, so directly and simply as had been hinted by Dr. Bennett. The positive part of Dr. Gairdner's communication consisted in the detail of observations on the structure and development of the pus, corpuscle and other pathological structures, intended to show that the so called cell walls were often generated in great numbers without nuclei; and that the whole of the facts of cell development contradicted the idea of any part of a cell being, more than another, the source of its functional activity and development. In regard to the development of fibres, Dr. Gairdner thought there was no evidence that these were ever produced from cells, under any circumstances; and he had long been in the habit of regarding the so-called fibre cells as merely transition types in morphology, and not parts of a physiological succession of stages of development. It was difficult to prove this view any more than its opposite, but he thought any one who would give it consideration in original observations, would find it in harmony with all the known facts, both physiological and pathological.

Dr. SANDERS remarked, that KÖNIKER had demonstrated unstriped muscular texture to be composed of permanent fibre cells, whose development by elongation of spherical nucleated cellules he had traced in the pregnant uterus. This texture, therefore, had been lately found a corroboration of Schwann's views, which it was previously thought to contradict. Doubtless some textures were formed without passing through the form of cells; thus, particularly, fibrous tissue, as observed in cartilage by Redfern and Donders; yet the constant presence of nuclei and cellules in skin, mucous membranes, glands, and bone; their transition forms; their extensive development in the fœtus; their occurrence in newly forming textures in all organized beings, animal and vegetable, gave immense weight to Schleiden and Schwann's views, and justified our adherence to them in physiological anatomy. In pathology, their application appeared more limited, and less satisfactory. Dr. GARDNER's statements, and a gaining distrust among observers at home and abroad, proved the necessity of submitting the "cell theory" to the criticism of new and extended observations; it ought not, however, to be rejected, but only thoroughly reinvestigated.

THE SALIVA.

The following account of recent discoveries respecting the nature and uses of this secretion, must possess an interest to a people characterized as the spitting nation. It is taken from a Paris letter in the Boston *Atlas*:

M. Claude Bernard, young as he is, (he is only 32) has acquired by his individual labours, and those in connection with Magendie, whose *vica* and coadjutor he is, a widely extended fame in physiological science. He has recently laid before the Academy of Sciences a magnificent memoir. The organs that secrete the Saliva in man and mammiferous animals, are composed of three principal glands, the parotid, placed in the hollow of the articulation of the jaw, the under maxillary, placed in the thickness of the floor of the mouth, and the sublingual, whose name clearly indicates its position. Until quite recently, anatomists, judging from the analogy of structure which exists between these different glands, agreed that their secretions had identical properties, and were destined to the same usage. They had even given the name *saliva-gland* to the pancreas, which is situated in the abdomen, and pours its secretion into the intestine, not far from the stomach. It was M. Claude Bernard, who first demonstrated the special functions of this organ, which is charged with the facilitation of the digestion of *oleaginous matters* by pouring upon the aliments an exceedingly sapid liquor. In applying to the glands of the saliva the same method of observation,

M. Bernard has ascertained that they secrete different liquids, each affected to a distinct use.

In considering the saliva as a simple fluid, physiologists made a mistake, there being really three species of saliva, more or less mixed together in the mouth—the saliva of the sublingual gland that is viscous and gluey; the saliva of the parotid, which is abundant, and liquid as water; and the saliva of the under maxillary gland, which participates in the qualities of the two others. The first sort lubricates and glues, as it were, the bodies it touches, but it can neither penetrate nor dissolve them; the second, on the contrary, moistens, penetrates and dissolves the soluble principles of the aliments with the greatest facility; the third seems to aid the perception of savours. That you may not set these down as mere subtle distinctions, allow me to enter into some details showing the part of the three great glands of the saliva. Nothing is easier than to show upon the living animal that the parotid secretion is exclusively destined to imbibe the dry aliments and favor their mastication. The variations of that secretion will be found in exact proportion to the degree of the dryness or humidity of the aliments. To make certain of this fact, the parotid canal of the horse is cut, and is exposed; and it is shown that the flow of saliva, very abundant when they give the animal hay, straw and bran, dry, on the contrary becomes sensibly less, when the same aliments are given moistened. The same experiment succeeds equally well upon dogs and rabbits; the parotid may be excited to secrete in less than an hour more than eight or ten times its weight of liquid. The conditions of the secretion of the sublingual gland are entirely different from those of the parotid. When the mastication is going on and the parotid saliva flows abundantly, the sublingual saliva, on the contrary, does not flow at all, or flows very slightly. It is only after mastication is over, and the animal about swallowing, the sublingual saliva flows abundantly.—The successive secretion of these two salivas, one fluid and the other viscous, can be easily ascertained by examining in the oesophagus of a horse the hay which has been insalivated; it will be found that the aliment is paste like, and completely moistened in the interior by a non-viscous saliva, which from its physical qualities may be easily recognized as the parotid saliva, while the exterior of the aliment is covered with a thick coating mucous and gluey saliva like the saliva of the sublingual gland. The movements of deglutition excite the activity of the secretion of the sublingual saliva, whether the aliments be dry or humid. So that even during the deglutition of water when the animals drink, the sublingual gland secretes and communicates a very perceptible viscosity to the water, which forms a marked contrast with the absence of saliva in the parotid canal. As to

the conditions of the secretion of the under maxillary gland, it has been observed that they are altogether different from the others. It obeys influences which are always connected with the sense of taste. In pouring down the throat of a dog, after having isolated the three saliva canals, any liquid, like vinegar, &c., it has been remarked that the canal of the under maxillary gland immediately pours out saliva in great quantities, and then the motion the animal makes to swallow brings out the parotid saliva, and complicates the experiment. But by acting directly and mechanically upon the nerve of taste, it is easy to react upon the special secretion alone, and to show that secret relation between the secretion of the under maxillary saliva and the sensation of taste, with a clearness which leaves nothing to desire.—When, with a pair of pincers, the lingual nerve may be irritated, and the flow of a single species of saliva induced at will, does it not seem that some of the most secret springs of our organization have been exposed?

In consequence of the natural succession which exists in the tasting of the food, the mastication and the deglutition, the three saliva systems which are relative to each of these acts do not perform their functions simultaneously, but successively, each after the other. This is indeed the constant result of experience. When meat is given to a dog whose three saliva ducts have been exposed, it is always seen that the under maxillary saliva flows first, then the parotid, and lastly the sublingual saliva.

M. Claude Bernard has also ascertained that the physical and chemical properties of the saliva are perfectly in sequence with their physiological destinations. By the aid of these physiological datas the modifications and real signification of the saliva organs in the different classes of vertebrated animals, may be easily studied and comprehended in several if not all their bearings. All at once comprehend why we do not find in birds either the parotid or the under maxillary glands. These glands cannot exist in animals which have no occasion to exercise taste or mastication. The usages of the saliva glands found in this class being merely for the purpose of deglutition, they have but a gluey, viscous saliva, like that secreted by the sublingual gland in the mammifera. In the mammifera who masticate hard and dry substances, the parotid requires its maximum of development, while with those, the seal, for example, who live in the water, and are nourished by humid aliments, this gland diminishes excessively, or even wholly disappears.

Such is an imperfect analysis of M. Claude Bernard's brilliant memoir. The professional reader cannot but shudder at the horrid tortures which must have been inflicted upon poor horses, dogs, and rabbits, before these results were attained.

STRUCTURES OF ARTERIES.

Mr. DRUMMOND exhibited several preparations of the middle coat of the aorta in the ox, for the purpose of showing—1st, that many of the fibres present a distinctly transverse striated appearance. They are branched generally, and anastomose with neighbouring fibres, presenting an appearance very similar to the branching striated muscular fibre; however, they differ in their chemical constitution, agreeing in this respect with yellow elastic tissue. They are in all probability analogous to the striated fibres occurring in the ligamentum nuchæ of some animals. When viewed with a high power, many of them seem to present a series of cup-shaped depressions, arranged in linear series in the longitudinal axis of the fibre, with intervening ridges or partitions, to which the striated appearance is owing. 2nd. That the structure described under the name of the fenestrated coat of Henle, as it occurs in the middle coat of the aorta in the ox, is formed by the amalgamation of the net-work of the yellow elastic fibres, the fenestræ or perforations being merely the remains of the areolæ between the fibres. The fibres which go to the formation of this coat often present traces of the transverse striated appearance above described. Preparations were also shown illustrating the development of the yellow elastic tissue as it takes place in the ligamentum nuchæ of the calf. A description of the development of this tissue will be given in a future report.

Dr. BENNETT showed, under the microscope, demonstrations of the blood in a case of leucocythæmia, in the practice of Dr. Monro of Dundee.

Dr. GAIRDNER exhibited various organs, as well as the clot of the blood, and a slightly enlarged and softened spleen, in what he considered as an incipient case of leucocythæmia, probably the earliest stage of the affection yet observed. The patient died of acute rheumatic endocarditis, with disorganization of the aortic valves and septum ventriculorum. The tissues, the blood, and the spleen, contained an excess of white corpuscles.

Dr. SANDERS was requested to investigate the spleen in this case.

SURGERY.

Strangulated Hernia in a Child five months old; Operation; recovery.

Under the care of Mr. ERICHSEN.

The following particulars were obtained from the notes of Mr. Tude, Mr. Erichsen's house-surgeon.

Arthur C——, aged five months and a half, was admitted April 12, 1852, under the care of Mr. Erichsen. It appears that when the boy

was three weeks old, a hernial tumour appeared in the right groin; it could be easily reduced, and would only come down occasionally—viz, about once a week. The tumour then used to remain apparent for several hours, and afterwards ascend spontaneously into the abdominal cavity. When the child was four months old, a truss was applied, but the apparatus proved ineffectual, as the tumour appeared again on the following day by the side of the pad. The truss seemed also to cause considerable pain, and the mother therefore brought the child to the hospital.

The little patient was found, on examination, to be affected with oblique inguinal hernia of the right side; the intestine had descended into the scrotum, and was greatly distending it. There were, however, no symptoms of strangulation at the time; some attempts were made to reduce the tumour, but these having failed, the mother was desired to leave off the truss and to bring the child immediately she perceived any unpleasant symptoms.

Six weeks after this (April 12, 1852) the mother applied to Mr. Erichsen again, as alarming signs of strangulation had manifested themselves. The tumour, which had remained unreduced, was now large and tense, its neck appearing to be tightly constricted by the external abdominal ring. In following the intestine down into the scrotum it was remarked that the latter was not only distended by displaced intestine, but likewise by fluid secreted in the cavity of the tunica vaginalis, so that the child was suffering both from strangulated inguinal hernia and hydrocele. Constipation and vomiting had been existing for some time, the surface was cold, the face pale and drawn, and the patient evidently in a very precarious state.

The mother, having been told of the dangerous condition of her child, readily consented to the performance of the operation; and Mr. Erichsen proceeded as soon as the child was narcotized by chloroform. The integuments were divided over the neck of the tumour, and the several layers of cellular tissue and fasciæ having carefully been slit open, the sac was fairly exposed. The constriction was now found to be exerted by the external abdominal ring, and a few transverse fibres of the cremaster muscle; a curved director was passed beneath these parts, the strangulating structures were divided by an incision directly upwards, and the protruded intestine returned with facility without the peritoneal sac having been opened. The edges of the wound were approximated with sutures, and the whole secured by a compress and a double-headed roller.

Three hours after the operation a copious liquid motion was passed, the child being perfectly quiet and composed. On the following day he

was in a very satisfactory state, and the wound looked very healthy. From this time the little patient progressed most favourably; he had no bad symptoms whatever, became cheerful, and improved much in appearance. The bowels were open daily, and the child left the hospital, the wound being quite cicatrized, eighteen days after admission.

It will be perceived that the taxis was not tried at all in this case when the symptoms were fully established; and that this cautious conduct has a marked and beneficial influence on the issue, is clearly seen by the success here obtained. We cannot help noticing, in reviewing this case, the baneful effects of the common spring truss in infants; nor can it be otherwise, for it is next to impossible that the pad should exactly compress the ring with infants at the breast. It is equally difficult to regulate the spring in such a manner as to prevent the truss from slipping, without using an amount of pressure which must of necessity be hurtful to the child. Nothing will answer in such cases but elastic belts, which yield without becoming displaced when the infant cries; the belt being supplied with an air-pad, as suggested by M. Bourjeaud, which shall be gently lodged upon the ring, and be made softer or harder by means of the stop-cock, as occasion may require.

Mr. Erichsen has operated in private practice upon extremely young children with varied success; we shall just allude to two of the cases as we are anxious to accumulate facts bearing upon operations for strangulated hernia in infants.—*Lancet*.

Strangulated Congenital Hernia in a Child ten weeks old; Operation; Death. Under the care of Mr. ERICHSEN.

MR. ERICHSEN was requested by Mr. Tweed, on the 11th October, 1850, to see a child ten weeks old, who was suffering from strangulated hernia. The child had passed no flatus nor feces for three days, and during the last two had been constantly vomiting thin, yellow matter. The ordinary domestic remedies having been tried in vain to open the bowels, Mr. Tweed was called in, who detected the hernia.

On examination, feces were found in both tunicae vaginales. On the right side, the canal and rings were occupied by a very tense inguinal hernia, which descended into the upper part of the scrotum above the hydrocele. Mr. Erichsen at once proceeded to operate upon this hernia, after having ineffectually tried the taxis a little time. The incision having been made in the usual direction, the structures, which were very thin, were carefully dissected, the tensely-stretched external abdominal ring divided on a director, and the sac opened, exposing a knuckle of cho-

colate-coloured intestine. The stricture, which appeared to be in the neck of the sac, was then divided upwards, and it was so excessively tight that Mr. Erichsen found some difficulty in getting his finger-nail underneath it. The intestine was then returned, and a few stitches having been put into the wound, a pad and bandage were applied.

When the sac was opened, the hernia being a congenital one, the spermatic cord and testis were of course exposed. These were deeply congested, the latter especially being of a dark purple colour, and looking like a sloe. A small quantity of calomel was given to the child every third hour, and chamomile fomentations were applied to the abdomen; but he died on the fourth day after the operation, without the bowels having acted.

On examination of the body, it was found that the portion of intestine that had been constricted was gangrenous, never having recovered itself so as to carry on peristaltic action. There were traces of general peritonitis.—*Lancet.*

Strangulated Congenital Hernia in a Child ten weeks old; Operation: Recovery. Under the care of Mr. ERICHSEN.

On the 12th of January, 1851, Mr. Erichsen was requested by Mr. Greenhalgh to see a child nine weeks old, in whom an inguinal hernia had descended for the first time, on the preceding day, during an effort at vomiting. Since that time there had been constant sickness and constipation.

On examination a very tense congenital inguinal hernia was found in the right side, descending into the scrotum. There was no

id soft. The taxis was influenced by chloroform, the tumour for two hours, but again but unsuccessful.

Mr. Erichsen in the usual way.

The sac contained but a small colate-coloured intestine was returned, which was in the neck of the gut returned. The same as in the last case. Stitches were put into the wound, and a pad and bandage were applied every sixth hour. The

Strangulated Hernia in a Child ten weeks old ; Operation ; Recovery.

Under the care of Mr. LAWRENCE.

Among the numerous cases of strangulated hernia which are operated upon in our hospitals, there are now and then very young subjects affected either with congenital or accidental hernia. These patients are for the most part only a few months old ; and it is a fact worth remarking, that, as far as we have seen, children between five and ten years of age are very seldom brought into operating theatres for the relief of strangulated hernia, whilst the operations are pretty often required in mere infants. It will be seen by the following case that success may attend the use of the knife in patients only a few weeks old though apprehensions may no doubt be justly entertained with children of so tender an age, for it happens now and then that they very quickly sink after the operation. We recollect a case of the kind where the division of the stricture allowed a great portion of the small intestines to slip out of the abdomen through the ring, so much so that the greatest difficulty was experienced in returning the mass. The child in that case survived the operation but a very short time. We are glad to say that Mr. Lawrence's little patient has done very well, and we proceed to detail the case from the notes of Mr. Smith, Mr. Lawrence's house-surgeon.

Edward T——, an infant only ten weeks old, who, with the exception of a cough, has been healthy from its birth, was brought to the hospital on the 14th of November, 1851, with an oblique inguinal hernia on the right side, and was placed under the care of Mr. Lawrence.

The mother states that the child had been crying and coughing a good deal, two days before admission, and had continued to do so day and night. On removing the napkin on the following morning, she perceived the swelling of the right side of the scrotum ; the bowels had, however, been relieved the previous evening. The woman took the child to the parish surgeon, who tried for about three minutes to reduce the rupture ; but he could not succeed, and advised the mother to bathe the part with warm water, and then put on a poultice. The child was also given an opening powder, which produced no effect. The boy vomited a yellowish fluid several times during the following night, as also on the morning when he was brought to the hospital.

On examination, the parts were found swollen and tender ; the child appeared pale and anxious and continued to vomit a fluid deeply tinged with yellow. He was at once put into a warm bath, and after a lapse of some minutes an attempt was made to reduce the hernia. The Tumour was somewhat less swollen, but very painful ; and as the taxis did not produce the least effect upon it, the efforts at reduction were not persevered in for more than two or three minutes. The child was seen

at one o'clock P. M., by Mr. Lawrence, who advised an immediate operation, as the parts were very tense, and the previous attempts at reduction had failed.

The little patient was in such a precarious state, that it was not deemed advisable to administer chloroform. Mr. Lawrence rapidly divided the skin and subjacent tissues, and exposed the sac, which proved to be formed of the tunica vaginalis. A knuckle of intestine of a deep claret-colour was thus exposed, together with the testicle, which appeared congested, the epididymis being also of a dark slate-colour. A director was, with some little difficulty passed into the abdominal cavity, and the stricture divided; the intestine was returned, the wound closed with a couple of sutures, and the child put to bed.

He took the breast about an hour after the operation, but vomited the milk occasionally, which latter was, when rejected, slightly tinged with yellow. The bowels acted between four and five o'clock in the afternoon, (the child had been operated upon at one o'clock,) and again during the night. The patient slept at intervals, but was rather restless. On the next day, the parts were somewhat swollen and inflamed; the sutures were removed, and a poultice applied. The boy seemed uneasy during the day, and vomited the milk twice; the latter, however, was not tinged yellow as before. The bowels acted three times in the course of the day. On the third morning, the child was reported to have passed a quiet night; he looked better, and took the breast well; the sickness had quite stopped, and the bowels were freely open.

This patient went on favourably for the fourth and fifth day, but on the sixth he again became restless, and the bowels remained confined. Towards evening they were slightly relieved, and on the following morning a teaspoonful of castor-oil, was administered, which acted freely. From this time, the little patient never had an unfavourable symptom, and was discharged ten days after admission, with the wound just closed.

A feature worthy of remark in the preceding case is the caution with which the taxis was employed. It is very likely that the issue would not have been so favourable, had efforts at reduction been long persevered in. In fact, it is sometimes hardly fair to lay failures at the door of the operator, when cases are sent to him in which dangerous inflammation has already been excited by rough handling. Early operations are especially called for in very young subjects, and in illustration of this position we beg to refer to the following cases.—*Lancet*.

EXCISION OF THE HEAD OF THE HUMERUS.—PROF. SYME.

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EXCISION OF THE HEAD OF THE HUMERUS.—PROF. SYME.

Janet Stoops, aged 30. We yesterday ascertained the truth in regard to this case, and did what I trust will prove sufficient for the

patient's complete relief. You recollect that at our last meeting I expressed my doubts as to the precise seat and nature of the disease. It was plain, from the sinuses leading to the joint, the copious discharges, and the long duration of the symptoms—viz, for five years—that there was some morbid derangement in the extremity of one or both of the bones composing the articulation. But whether this was an exfoliation, such as you witnessed in another case the same day, or caries; and whether this condition, if really existing, was limited to one, or extended to both bones, were questions which neither the history of the case nor the most careful exploration of the sinuses seemed sufficient to determine. With the exception of the lower jaw, the humerus is more prone to exfoliation of its articulating extremity than any other bone in the body, the softer cancellated portion being usually absorbed, and merely the dense part left, so that a very scanty representative of the original bulk remains. Some of you may recollect a case of this kind that occurred last winter, in which the exfoliation removed very much resembled in size and form an old-fashioned watch-glass. Another result of inflammation affecting this bone, occasionally met with, is partial absorption of the head of the bone, with caries of the remainder, which is then hollowed out into a cavity, the external surface being sound and the internal diseased. Such was the state of matters in a woman on whom I operated twenty-six years ago. She had suffered for six years, and been dismissed as incurable from this hospital; subsequently came under the care of Mr. Liston, who proposed nothing for her relief, and finally submitted to an experiment which I proposed. This was to cut into the joint, and ascertain the true state of matters, which proving to be an excavated state of the head of the humerus, was easily removed by excision of this part, so that the patient gradually regained her strength, and lived in good health, with the nearly perfect use of her arm, for ten years afterwards. But there is still another form of disease, and unhappily more frequent than either of the others, in which the field for surgical interference is less satisfactory. This is caries of both the articulating surfaces, in which case I regret to say there is no mode of affording effectual relief, except amputation of the arm at the shoulder-joint, followed by free removal of the diseased portion of the scapula. In such circumstances I have repeatedly performed excision of the articulation, but always with an ultimately unsatisfactory result; while in cases of the most unfavourable character, the more severe measure has, no less uniformly proved successful. In the case which you witnessed yesterday, being uncertain as to the precise seat and nature of the disease, I made an incision directly downwards from the acromion, sufficient to admit my finger into the joint, and allow the extraction of any

exfoliated portion of extension in the event of a more serious operation being found requisite. Having found and removed two exfoliations from the head of the humerus, I ascertained that the remaining portion of it was excavated into a cavity, while the glenoid surface of the scapula was quite sound, and therefore extended the incision downwards and backwards to one of the sinuses, which opened at the posterior margin of the axilla; guided a knife round the head of the bone, thrust it through the wound, by carrying the arm forwards across the duct, and sawed it off. The patient has been quite easy since, and will, I trust, make a good recovery. She went to sleep under the chloroform, fully prepared to part with her arm, and was not a little pleased to find, upon awaking, that she still retained it.—*Monthly Journal*.

CLUBFOOT—VARUS.—PROF : SYME.

This child, seven months old, has been brought from the country, or rather a distant town, on account of congenital deformity of the right foot. You see that the toes are turned inward, while the heel is drawn up, so that the little patient, if able to stand or walk, would rest upon the outer edge of the metatarsus. I now divide the tendo Achillis by subcutaneous incision, and the heel is at once set free; but the inversion is still obstinate, and I therefore in the same way divide the tendon of the tibialis anticus. Immediately upon which the foot admits of being straightened, and kept in this position by means of a simple splint. This will be allowed to remain for two days, when what remains requisite for complete recovery may be trusted to a leather boot, with firm sole and sides, laced in front. Such is the simple process by which the worst forms of clubfoot are now easily remedied; and there is no triumph of modern surgery more creditable to the advance of our art than the control thus acquired over one of the most unseemly inconvenient, and previously unmanageable deformities to which the human body is subject. The author of a surgical work lately published in London (Mr. Bishop,) and which, from the opinions of the medical press, seems to be much admired in that part of the world, has endeavoured to show that the force transmitted through the tendo-Achillis tends to cause eversion of the foot, or that form of clubfoot named valgus, and after a demonstration to this effect, proceeds to say:—"Hence it is obvious, that if in talipes varus the tendo-Achillis is cut, it must increase the mischief." Now, the case which you have just witnessed will enable you to appreciate the incredible absurdity of this statement, so opposed to common sense and inconsistent with daily experience.

Fortunately for you, Edinburgh does not possess any orthopaedic institutions, or fistula infirmaries, or cancer hospitals, so that the whole field of surgical practice is placed under your observation, instead of being divided into sections, and committed to the charge of specialists whose claims to confidence in their peculiar department seldom amount to more than their admitted obscurity in regard to the whole subject. You are thus able to judge from what you see, and will I trust never permit the mis-representations of sophistry to mislead you from the true path of experience.—*Monthly Journal*.

WOUND OF THE RADIAL ARTERY.—PROF: SYME.

May 17th. J. S., aged 40, from Kinross-shire, states that while pruning a gooseberry bush he accidentally thrust the knife into his left forearm, at the lower part of its upper third. Blood gushed out, he said, as when a pig is stuck; but was partially checked by the pressure of his thumb on the wound, and afterwards more effectually restrained by a medical man, who stitched together the edges of the orifice, and applied a bandage. Still the bleeding repeatedly recurred, so as to require the further protection of a tight band applied above the elbow; and on the following day induced him, with the advice of his attendant, to come here for some more effectual relief. Having removed the bandage, I found a pulsating tumour at the seat of injury, which was laid freely open by dividing the stitches and extending the incision through the integuments. The clotted and fluid blood being sponged out, while pressure was made above the elbow, I dilated the opening through the fascia and muscles, so as to expose the injured vessel, which proved to be the radial artery, passed a double ligature under it, and tied one of the threads on either side of the aperture in its coats. The patient has suffered no inconvenience, and is not likely to do so. You thus see the advantage of adhering to the important principle of practice so powerfully advocated by Mr. John Bell, which was to tie arteries that required to be tied for hæmorrhage by exposing them at the seat of injury. The general rule is, that arterial hæmorrhage should always, pressure, if possible, be arrested by local means directly acting on the wound. If the artery concerned be at or below the wrist, or at or below the ankle, if properly employed, will always prove sufficient; but if the vessel injured be of a larger size, a ligature on each side of its aperture is the proper measure for security. If in this case which you have seen, I had tied the brachial trunk, hæmorrhage would have still been maintained through the free anastomosis of its branches in the forearm; and if pressure had

then been applied; the impoverished limb would have readily passed into a state of mortification. Many arms, and not a few lives, have fallen victims to this error of practice.

EXCISION OF THE SUPERIOR MAXILLARY BONE. By Prof: SYME.

I PLACE this patient before you, in the first place, to show how little deformity may result from removal of the whole upper jaw-bone. When the extent to which it enters in forming the mouth, the nose, and the orbit, is taken into account, a very serious effect of this kind might be expected. But you see that, although little more than two weeks have elapsed since the operation was performed, the countenance is hardly at all disfigured, and the articulation is distinctly intelligible. In the second place, I wish you to remark that the process of removal was accomplished by means of one simple incision through the cheek, from the malar projection to the angle of the mouth. Since I performed this operation in 1829, for the first time in Great Britain, and placed the first case of its execution on the records of surgery, various modes of incision, more or less complicated, and even zig-zagging in four or five different directions, have been proposed. But as access to the parts concerned could not be required in any case more freely than in the one you have witnessed, and as the simple incision has proved amply sufficient for the purpose. I trust you will not hesitate to discard any prejudice that may have been acquired in favour of such needless and hurtful complications; for the more simply the integuments are divided, the more perfectly may they be reunited. And in the third place, I now beg to call your attention to the perfect adhesion which has been established in the case before you. The wound has healed literally without a drop of matter, and was apparently as sound three days after its infliction as at present. From its situation, if any perceptible trace were left, it would be covered in a male by the whisker, and in a female by the string of her cap. But even at this early stage it would require close inspection to detect the line of incision. Now this perfection of reunion has an important bearing on the principles of practice concerned in the treatment of wounds desired to heal by the first intention. For if the condition which afforded such a favourable result could be insured upon other occasions, there would be no risk of the disappointments that so frequently occur; and although this unfortunately cannot be accomplished to the full extent, the knowledge of what is really required may lead a far way to success. It has long been a well-known fact in surgery, that penetrating wounds of the cheek adhere more readily than most other solutions of continuity to which the

body is exposed ; and various attempts have been made to account for this, on the ground of alleged peculiarities in the texture concerned, notwithstanding the obvious objection to such a view of the matter, that wounds of the cheek which *do not penetrate its whole thickness*, are no less difficult to heal by the first intention than those that occur elsewhere. The true explanation is, that a wound which penetrates into the mouth has two orifices—one external and the other internal ; so that, while one is accurately closed, the other may remain open, for the discharge of blood that would otherwise accumulate in the cavity between the surfaces of the wound, so as to separate them and prevent their union. The grand essential for primary adhesion is, that the respective surfaces should be in accurate contact ; and unless they are not only so situated, in the first instance, but also protected from subsequent separation through the retention of blood or other influences, their union is impossible, however conducive to this result the circumstances may be in other respects. In every wound, then, that you wish to unite by the first intention, you should employ every precaution to prevent the raw surfaces from being displaced, in regard to their respective positions ; in the first place, by fitting them accurately to each other ; hence the advantage of simple incisions ; and, secondly, by so dressing them as to prevent the accumulation of blood. Having long laboured to establish this principle of treatment, I regret to see that a backward tendency has been in recent times manifested by the preposterous proposal of sealing up the wounds by collodion or other impermeable coverings.

Disease of the Hip joint of several years' standing ; Death ; Examination of the joint. Under the care of Mr. KEATE.

Much difference of opinion still exists as to the propriety of removing the head of the femur in certain stages of hip disease ; we are, therefore, anxious to put upon record facts which may aid in the elucidation of the question. Post-mortem examinations, in cases where no operation has been performed, are certainly of some value ; with this view we adduce the following case, derived from the notes of Mr. Holmes, surgical registrar to the hospital.

Sarah W——, aged six years, was admitted April 21, 1852, under the care of Mr. Keate. This child had been ill, it appeared, for the last two years, her symptoms being referred to the left hip. She had been under treatment at another hospital, and had derived great temporary benefit from the means adopted. On examination, a large abscess was detected at the upper part of the left thigh ; the pelvis was much

twisted, and the left knee pointed across the opposite side; any attempt to straighten it gave her pain, but she did not suffer much otherwise. Her manner was drowsy and listless.

Two days after admission a small opening was made into the abscess and a considerable quantity of pus evacuated; the discharge continued and the deformity increased for the next fortnight; and as she seemed to be getting weaker, she was given bark and ammonia, with good diet, and porter. It was proposed to put her on a double inclined plane, but the pain induced by the attempts to alter her position caused this to be deferred. On the 12th of May, twenty-one days after admission, it was noticed that her drowsiness was increasing, so much so that it was difficult to rouse her, and her strength appeared to be failing. In spite of an abundance of stimulants, she died May 16, twenty-five days after admission.

Post-mortem Examination.—The shortening was only *apparent*, for the measurement proved the length to be the same on both sides. In the brain, the lateral ventricles were much distended by serum; the kidneys were healthy, and the diseased joint presented the following appearances:—Head and neck of the femur extensively carious, and articular cartilages almost gone; the head of the bone was not dislocated, and the ligaments of the joint remained entire. The neck of the femur was extensively diseased, and two or three large portions of bone were lying loose upon the carious mass. The acetabulum was likewise in a carious state, especially towards its anterior and lower portions, about half the thickness of the bone being there eaten away. In other parts, remains of the cavity were still apparent. There was no trace of disease on the pelvic surface of the os innominatum; the sinuses in the neighbourhood of the bone were much thickened, but no collection of matter remained.

Mr. William Adams, demonstrator of morbid anatomy at St. Thomas's Hospital, examined, a few days ago, the body of a little girl, about seven years of age, in the last stage of emaciation and marasmus from hip disease, which had lasted several years. The greater portion of the head of the bone was absorbed, the cartilage at the epiphysis, between the head and neck, becoming visible by a longitudinal section. The remains of the head were studded with irregular calcareous deposit, and the great trochanter was carious. The cotyloid cavity was quite disorganized, the bony plate forming its fundus quite destroyed, and pus extended into the pelvic cavity, from which it had been discharged by a fistulous aperture in front of the joint.

It may be surmised, from these two post-mortem examinations, that if the removal of the head of the bone be attempted at all, it must be

patient's complete relief. You recollect that at our last meeting I expressed my doubts as to the precise seat and nature of the disease. It was plain, from the sinuses leading to the joint, the copious discharge, and the long duration of the symptoms—viz., for five years—that there was some morbid derangement in the extremity of one or both of the bones composing the articulation. But whether this was an exfoliation, such as you witnessed in another case the same day, or caries; and whether this condition, if really existing, was limited to one, or extended to both bones, were questions which neither the history of the case nor the most careful exploration of the sinuses seemed sufficient to determine. With the exception of the lower jaw, the humerus is more prone to exfoliation of its articulating extremity than any other bone in the body, the softer cancellated portion being usually absorbed, and merely the dense part left, so that a very scanty representative of the original bulk remains. Some of you may recollect a case of this kind that occurred last winter, in which the exfoliation removed very much resembled in size and form an old-fashioned watch-glass. Another result of inflammation affecting this bone, occasionally met with, is partial absorption of the head of the bone, with caries of the remainder, which is then hollowed out into a cavity, the external surface being sound and the internal diseased. Such was the state of matters in a woman on whom I operated twenty-six years ago. She had suffered for six years, and been dismissed as incurable from this hospital; subsequently came under the care of Mr. Liston, who proposed nothing for her relief, and finally submitted to an experiment which I proposed. This was to cut into the joint, and ascertain the true state of matters, which proving to be an excavated state of the head of the humerus, was easily removed by excision of this part, so that the patient gradually regained her strength, and lived in good health, with the nearly perfect use of her arm, for ten years afterwards. But there is still another form of disease, and unhappily more frequent than either of the others, in which the field for surgical interference is less satisfactory. This is caries of both the articulating surfaces, in which case I regret to say there is no mode of affording effectual relief, except amputation of the arm at the shoulder-joint, followed by free removal of the diseased portion of the scapula. In such circumstances I have repeatedly performed excision of the articulation, but always with an ultimately unsatisfactory result; while in cases of the most unfavourable character, the more severe measure has no less uniformly proved successful. In the case which you witnessed yesterday, being uncertain as to the precise seat and nature of the disease, I made an incision directly downwards from the acromion, sufficient to admit my finger into the joint, and allow the extraction of any

exfoliated portion of extension in the event of a more serious operation being found requisite. Having found and removed two exfoliations from the head of the humerus, I ascertained that the remaining portion of it was excavated into a cavity, while the glenoid surface of the scapula was quite sound, and therefore extended the incision downwards and backwards to one of the sinuses, which opened at the posterior margin of the axilla, guided a knife round the head of the bone, thrust it through the wound, by carrying the arm forwards across the duct, and sawed it off. The patient has been quite easy since, and will, I trust, make a good recovery. She went to sleep under the chloroform, fully prepared to part with her arm, and was not a little pleased to find, upon awaking, that she still retained it.—*Monthly Journal*.

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done early; for it would appear that the cotyloid cavity becomes, with time, involved in the mischief. It is, on the other hand, possible that the disorganizing process may be carried on simultaneously both in the head and acetabulum.—*Lancet*.

Dr. SANDERS also communicated the following.

ON THE CONTENTS OF THE CYST, IN A CASE OF RANULA.

In the fluid contents of a ranula existing on the left side of the tongue, and evacuated by incision, the liquid was transparent or slightly opalescent, viscid, and tenacious, and forming a thick, curdy precipitation on the addition of nitric acid. Under the microscope (250 diam.), a large number of cells were seen in different stages of growth; the most numerous about 2.3 centimillimetres diam., granular, generally with one, sometimes two, nuclei. Some larger cells, of 4.5 centimillimetres, contained several, sometimes four or five, clear, shining nuclei, imbedded in granular matter in their interior. On dilute acetic acid being added, the nuclei became more distinct; and in the larger cells, the granular matter, with its imbedded nuclei, contracted into a mass, and separated from the cell wall, leaving it clear and projecting, like a watch-glass, at part of its circumference. A curious phenomenon was also noticed; several clear, spherical, celloid processes were developed at the circumference of many of the cells from which they appeared to proceed.

Mr. DRUMMOND mentioned in opposition to the assertion of Zimmerman, that the blood of the fœtus contained no fibrine, that he had recently found it to contain a considerable quantity of that substance.—*Edinburgh Monthly Journal*.

LARGE OVARIAN CYST; REMOVAL.—Mr. I. BROWN exhibited a large multilocular cyst, which he had lately removed from a young married woman at St. Mary's Hospital, by extirpation. A firm band of adhesion existed, about a quarter of an inch in width, attached to the middle lobe of the cyst anteriorly, and extending in the right hypogastric region, where it was firmly adherent to the parietal walls. This band was divided to enable the mass to be removed, and no blood appeared to flow; but the patient gradually sank on the third day after the operation, and a post-mortem examination discovered that the band of adhesion contained two bloodvessels, and from these had flown fourteen pounds of blood, which was surrounding the bowels and occupying the pelvic cavity, most of it in a fluid state, some of it in coagula. The ligature

around the pedicle was so firm and tightly applied, that it was impossible that any blood could escape from the vessels there. This cause of death was of great practical interest, and Mr. Brown stated that he was not aware of a similar case, and it was therefore of importance to be known by every surgeon who performed ovariectomy.

PRATICE OF MEDICINE AND PATHOLOGY.

[We plead guilty to the charge brought formally against us by our cotemporary, the *Boston Medical Journal*, of having omitted on two occasions, giving him credit for the articles we copied from his pages, but we can assure him he is quite wrong in supposing we did so for the purpose of making it appear that the articles in question were written expressly for this Journal. We had hoped that the number and variety of our original papers might have satisfied him that we are not driven to such barefaced shifts to fill our pages.—*Eds. Can. Med. Journal.*]

Prevention of Salivation. By GEORGE STEARNS, M. D.—I wish to communicate a fact to you that has recently fallen under my observation, which may be of some interest to the profession generally. All physicians are aware of the salivating effect of calomel, and of the inconvenience that arises from sore mouths and other irritating complaints that affect the patients. I have had several persons under my care to whom I have been obliged to administer calomel, which I have mixed with supercarbonate of soda, in the proportion of about twice the amount in weight of soda. To one patient in particular, whom I have attended, for about ten weeks, I have given three grains of calomel with six grains of soda daily for five weeks, besides administering it frequently during the rest of the time. As yet, he has not suffered at all from the salivating effect of the calomel, which has nevertheless been very beneficial to him. It is possible that these were all persons not susceptible to salivation. Or is the absence of salivation to be attributed to the supercarbonate of soda?—*Boston Med. Journal.*

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ON THE IODIDE OF POTASSIUM IN SYPHILIS.

The following remarks upon this subject are made by the Reviewer in the *British and Foreign Medico-Chirurgical Review*:—Dr. Williams was the real discoverer of this influence, perhaps the greatest therapeutical discovery of the age, after that of the anæsthetic effects of ether and chloroform. His paper was read at the College of Physicians in 1834, five years before Ricord began his experiments; and so far from giving it indiscriminately in all cases, he took the greatest pains to in-

investigate its real powers, and pointed out where it was efficacious and where useless; not with hesitation, but with all the open candour of his nature. In his "Elements of Medicine," while showing the marvellous certainty of its action in *scabies* and the hard periosteal node, he showed that its power was much less in *roseola*, *purpura*, and *ecthyma*, but still it was better than mercury; while in *lichen*, *lepra*, *psoriasis*, and *iritis*, he proved, with equal clearness, that mercury, either locally or generally, had far more beneficial influence than the iodide. He pointed out the curious fact, that while the action of the iodide on hard periosteal node was as certain and evident as that of quinine in *ague*, when once suppuration had commenced, *sarsaparilla* was the remedy, the iodide being useless. In soft node and *prurigo*, he showed the true power of *sarsaparilla*, and in syphilitic *angina* and *rupia*, the invariably good effects of combining local mercurial applications with the internal administration of the iodide. We witnessed many of his experiments, and for the last twelve years have been guided by his results, without having ever had cause to regret it; and after tolerably extensive opportunities of treating secondary symptoms, the only modification we have learnt to make in his practice, is the occasional use of the proto-iodide of mercury in *lichen* and in some of the affections of ligaments and synovial membranes. We almost always give the dose recommended by Dr. Williams, eight grains three times a day in water or camphor mixture; and when using the proto-iodide of mercury, begin with one grain daily in doses, increasing gradually to three or four grains in the day, made into pills with liquorice, or with catechu, if it acts on the bowels. Opium appears to destroy its power altogether. We never saw any good done by giving a mercurial course before the iodide, as many recommend, but often much harm. On this point, and on the relative powers of iodide of potassium and mercury in syphilis, we would refer to a work in which the investigation has been made in the true spirit of science by Dr. Hassing of Copenhagen.—*Dublin Med. Press.*

MIDWIFERY AND DISEASES OF WOMEN, &c.

Royal Medical and Chirurgical Society. An analysis of one hundred cases of cancerous disease of the uterus. By ROBERT LEE, M. D., F. R. S., &c.

THE conclusions to which the author arrived from this analysis were—
1st. That cancer may commence in any part of the mucous, muscular, or peritoneal coat of the uterus; but most frequently in the os and cervix. 2ndly. That the earliest symptoms of the disease, in a large

preparation of cases, were discharges of sanguineous, serous, or white-coloured fluid from the vagina, with sense of uneasiness or pain more or less acute within and around the pelvis. 3rdly. That cancerous disease of the uterus presented itself most frequently in the form of induration and ulceration of the os and cervix uteri and vagina, or ulceration without induration, or in the form of fungoid tumours, usually called cauliflower excrescences, growing from one of the lips or the whole os uteri, being often associated with encephaloid or colloïd masses and true scirrhus of the remaining portions of the uterus and contiguous viscera. 4thly. That in no case could cancerous disease of the uterus be referred to inflammation; and that its fatal progress was never arrested by cauterizing the morbid structures through the speculum, nor by any other method of treatment.—*Dublin Med. Press.*

MATERIA MEDICA.

On Cod-Liver Oil. By Dr. F. F. WINDHAM.

THE constituents of genuine cod-liver oil, are, according to Dr. De Jongh's analysis:—

Gaduin? (a so-called organic substance)	Bilifulvin
Oleic acid	Iodine, chlorine, and bromine
Margaric acid	Phosphoric acid
Glycerine	Sulphuric acid
Butyric acid	Phosphorus
Acetic acid	Lime
Fellinic acid	Magnesia
Cholic acid	Soda
Bilifellinic acid	

Hence, therefore, its composition would be quite analogous to that of the other fatty oils; but with the addition of small quantities of some of the constituent parts of the bile and also of iodine, bromine, and gaduin. But my own investigations have led me to regard cod-liver oil as an organic whole, of a peculiar chemical composition, differing from that of all other fatty oils hitherto employed as medicines. I prove this assertion by the following facts:

1. If genuine cod-liver oil from Berg (the light clear sort) be saponified with potash, and the thus obtained and purified soap be decomposed by tartaric acid, we obtain oleic and inorganic acid.
2. If a mixture, consisting of a solution of six parts of caustic potash, twenty-four parts of distilled water, and twenty-four parts of cod-liver

oil, be left for several days standing at the ordinary temperature and frequently shaken, then diluted with twenty-four parts of distilled water, and distilled, the distillate possesses the most intense odour of cod-liver oil, and contains a considerable quantity of a peculiar organic compound, oxide of propyle.

3. If nine parts of cod-liver oil be saponified in a porcelain vessel, by five parts of oxide of lead in the waterbath, and the required quantity of distilled water added, the cod-liver oil is decomposed into oleic acid, an inorganic acid, and a new acid—namely, *propylic acid*. The greatest portion of this acid, as well as of the oleic and inorganic acids, combine, as it appears with the oxide of lead, to form a basic compound. Another, very probably, acid salt of lead, can be extracted from the plaster-mass by washing it with distilled water. Not a trace of the hydrated oxide of glyceryle is formed on this occasion. The mass smells very disagreeably of train oil and herring, and if exposed in very thin layers in the water-bath, to the influence of atmospheric air, it assumes a dark-brown colour after the water is evaporated, at the same time the disagreeable odour for the most part disappears.

This colourization is a consequence of the strong tendency of the propylates to become oxidized, and by this to become dark. If the solution of acid propylate of the oxide of lead be treated with sulphuretted hydrogen, and the sulphuret of lead be removed, we obtain a perfectly colourless solution, which has a strong acid reaction, becomes coloured by evaporation in the water-bath, loses the very disgusting odour of train oil, and at last leaves an intensely brown coloured residue. Exactly the same is the case with the watery solutions of the neutral propylates of baryta and ammonia. The perfectly neutral, colourless, but undecomposed solution of the ammoniacal salt smells of herrings, but that of the salt of lead smells like concentrated broth.

4. If a solution of cod-liver-oil-soap, prepared as stated in No. 3, be distilled in a suitable spacious distilling apparatus, with an addition of caustic lime and chloride of ammonium (in the proportion of six drachms hydrate of potash, three ounces of cod-liver oil, six ounces of water, six ounces of fresh burnt caustic lime, and one drachm of chloride of ammonium,) with the precaution that the mixture of lime and chloride of ammonium be added to the soapy mixture previously introduced into the retort, so that the lime mixture be perfectly impregnated by the latter, the generation of hydrate of lime takes place upon the application of a slight charcoal-fire, with a rather strong heat; at the same time a colourless liquid, clear, like water, is distilled over, and this is a *concentrated aqueous solution of propylamine*, without free ammonia. The crystallized sulphate of propylamine is easily obtained

from this solution by saturating it with diluted sulphuric acid, and precipitating the resulting salt with spirit of wine.

This very simple experiment is sufficient to prove with certainty the proportion of the oxide of propyle in cod-liver oil; the propylamine possesses all the properties of that obtained from the brine of herrings or from sago of rye.

Conclusion.—Cod-liver oil, when saponified with potash, yields oleic and margaric acids, and oxide of propyle; with oxide of lead it forms oleic and margaric acids and a pure highly oxidized matter from propyle; namely, *propylic acid*. In neither case of saponification is the *hydrated oxide of glyceryle* obtained: the *glyceryle* is replaced in cod-liver oil by *propyle*. The generation of *propylamine*, on the addition of ammonia, takes place only in cod-liver oil, and in no other officinal fatty oil, and its place in the *Materia Medica* cannot, therefore, be supplied by any other oil.

It is not my intention to draw, from these investigations, any conclusion as to the medicinal efficacy of cod-liver oil. I am not a physician; but when we reflect that the fat assimilated by the animal organism serves chiefly as a material for the process of respiration, the possibility of cod-liver oil undergoing during this process a decomposition similar to that which it undergoes by the influence of alkalies, is very plausible; and when we further consider that in such a decomposition, by the presence of the conditions requisite for the formation of ammonia, which, indeed, are never wanting in the animal organism, the formation of propylamine is highly probable, it is not surprising why cod-liver oil alone should prove so advantageous in many diseases, even exclusive of the slight proportion of iodine; and I think myself justified in concluding that the efficacy of this oil depends chiefly upon the peculiar chemical composition which I have discovered; as propylamine, according to my experiments, is to be found also in the normal urine and sweat.

The importance of the small quantity of iodine contained in the oil I shall endeavour to determine by subsequent experiments; for the present, I shall only observe that both the *oxide of propyle* and the *propylamine* are chemically very closely related to iodine, the first forming with it a compound (iodide of propyle,) similar to iodide of formyle (iodoform,) which becomes very easily decomposed.—*Buchner's Neues Repertorium für Pharmacie and Phar. Jour.*—*Dublin Med. Press.*

On Edible Earths. By EHRENBERG.

Various kinds of edible earth were known in China in very ancient times, and it may be presumed, that many of them are mixed or pure.

tripolitan fresh water boulders—i. e., species of earths or stones, the elements of which consist chiefly of remnants of microscopic living beings. In the year 1839, Biot read before the Academy of Sciences in Paris a treatise, containing everything that was then known on this subject, to which his son, the oriental linguist, Biot, furnished translations from Chinese and Japanese works. From Schott in Berlin, Professor Ehrenberg obtained in addition the following information taken from Chinese sources. The first mention of edible earth dates from the year 744 after Christ, and is contained in the Chinese work *Pen-tsao-kang-mu*, where it is called *Schi-mian*, Stonebread, or *Mi-ansehi*, Breadstone; the article in the Japanese "Encyclopædia," which Biot has translated, is taken from this work. The *Pen-tsao* says, according to Schott, that stones contain several substances which are edible, especially a yellow meal and a fatty liquid, which is contained in the white *Yü* (a stone,) and is, therefore, called the fat, marrow, or mucilage of the white *Yü*. An earthy substance, prolonging life, and called *Schi-nas*, is found in the very smooth stone *Hoa-shi*, which is supposed to be *Steatite*, and may, perhaps, be decomposed *Steatite*. The *Schi-mian* is only used as a substitute for bread in times of scarcity, when it is miraculously found in different localities, as is believed. The imperial annals of the Chinese have always religiously noticed its appearance, but have never given any description of the substance. The *Pen-tsao* quotes, under the emperor *Hiuan-Tsung* of the great dynasty *Tang*, in the third year *Tian-pao* (744 after Christ) a spring in *Wujin* (now *Liang-tschen-fu*, in the province *Kan-su*,) which ejected stones, that could be prepared into bread, and were gathered and consumed by the poor. (Schott.)

Under the emperor *Hian-Tsung*, of the same dynasty, in the ninth year of the period *Yüen-ho* (809 after Christ,) the stones became soft and turned into bread. (Biot.)

Under the emperor *Tschin-Tsung*, of the dynasty *Sung*, in the fifth year of the period *Ta-tschoh-Tsiang-fu* (1012 after Christ) in the fourth month, there was a famine in *Tsy-tschen* (now *Ki-tschen* in *Ping-yang-fu*, in the province *Schan-si*,) when the mountains of *Hiang-ning*, a district of the third rank in the same part, produced a mineral fat (*Stonefat*) resembling a dough, of which cakes could be made. (Schott.)

Under *Jin-Tsung*, in the seventh year of the period *Kia-yeu* (1062) stone meal was found. (Biot.)

Under *Tschin-Tsung*, in the third year of the period *Yuen-fong* (1080) the stones turned into meal. All these kinds of stone-meal were collected and consumed by the poor. (Biot.)

Very recently, in the years 1831 to 1834, similar kinds of earth have been found in China, and were used as food during the great famine, as

has been reported by the Chinese missionary, Mathieu-Ly, who resides in the province Kiany-si. In the year 1834 he writes:—"Many of our Christians will surely die this year from starvation. The Almighty alone can aid them in such great distress. All harvests have been destroyed by the floods. For three years a large number of persons have lived upon the bark of an indigenous tree; others have eaten a light white earth which has been discovered in a mountain. It can only be obtained for silver, and not every one can, therefore, procure it. The people have first sold their wives, then their children, then their furniture, at last they have pulled down their houses and sold the wood. Many of them were, four years ago, wealthy men." The missionary Rameaux, also reported in 1834, from the province Hu-kuang, that many Chinese Christians have sent for him to administer to them the last sacrament, and foreseeing the hour when they were to die from starvation, actually died at that very time. The very dense population and industry which necessarily takes possession of everything, are, in cases of earthquakes and deluges, the cause of these circumstances in China. The districts where stone-bread has been found are the northern province of Schan-si, the east provinces of Schan-tong and Kiang-nan, on the mouth of the Yellow river (Huang-hu,) the provinces Hu-kuang and Kiang-si, in the valley of the Blue river (Yantsekiang). It is very desirable to know the masses, localities, extent of occurrence of these earths, as well as their geognostic character. The analysis of the two kinds, which the author has obtained, renders it very probable that all similar substances belong to antediluvian deposits, some of which are very probably tripolitan, fresh water bioliths of infusoria, while others appear to be clay mixtures or real clays. (*Letten.*)

A White Edible Earth of 1834, from China.—The author obtained in the year 1841, by Humboldt, from Paris, a sample of the edible white earth, sent to Paris by the French missionary in China. One of the two pieces measured two inches in diameter, the other one inch. It has a white colour, similar to chalk, but is as light as *Kieselguhr* or *Meerschäum*, is somewhat fatty to the touch, not soiling the fingers, but very brittle. The pieces having been broken in those directions which were indicated by a previous crack, some of the internal surfaces had a rusty colour, but only superficially. Acids caused no effervescence. According to the analysis, this earth is merely silicate of alumina, the peculiar lightness of which is striking. If heated, it assumes a gray colour. In fifteen samples no organic mixture could be discovered by microscopic examination, which latter shows also no similarity between this substance and *Meerschäum*; there is also an entire absence of magnesia. This earth has much resemblance to lithomarge-

like Kaolin, but its lightness and the different form of the microscopic parts admit no identity between them. Irregular, mostly globular bodies of various sizes, with soft obtuse outlines, compose the whole mass. Perhaps it is a deposit of a precipitate from hot siliceous waters.

From the blackish mould left in the impressions of the smoothly scraped natural surface, it is obvious that the fossil has not been taken out from the midst of rocks, but was dug out from a black mould. Analyses have shown eighteen different microscopic forms, which are enumerated in the 294th analyses of the microgeological researches of the author.

B. Yellow Edible Earth from China.—In the year 1847 the author obtained from one of the great geological collections in London a small sample of this earth, which from a gray passes almost into a sulphur-yellow. It resembles a very fine clay, does not soil the fingers, but is brittle, and shapeable when moistened. Acids produce no effervescence, and when heated it becomes first black, then somewhat reddish. Its microscopic elements are a rather coarse, double refracting, mostly quartz sand, surrounded by a somewhat finer mould. Intermixed are isolated, small green and white crystals, mica, and Phytolitharia, with now and then traces of Polygastric shells and silicious casts of stone kernels of Polythalamia. In ten analytical examinations were found fourteen forms: one Polygaster, nine Phytolitharia, one Polythalamium, and three crystals. The substance is therefore, according to this, a loamy or clayey substance. All the Phytolitharia contained in it are in a corroded porous state, just as they occur in antediluvian tertiary layers. The presence of Polythalamia and in particular of Textilaria globulosa in a stratum, very likely of the interior continent, indicates chalk formations in the vicinity of the place, or at least in the aquatic district of the river. This appears to prove that the clay similar to the edible Tanah ambo in Java, which it very much resembles, is a tertiary fresh-water formation in the modern sense of geognosy, incumbent on chalk, or mixed with fragments of chalk. The forms occurring in it are:—

1. Polygastric: *Trachelomonds laevis*.
2. Phytolitharia: *Lithodontium Bursa*, *L. nasutum*, *L. rostratum*, *Lithosphæridium irregulare*, *Lythostylidium clavatum*, *L. laeve*. *L. quadratum*. *L. rude*, *L. Trabecula*.
3. Polythalamia: *Textilaria globulosa*.
4. Inorganic forms: green crystalline prisms, white crystalline prisms, plates of mica.

The sum of the discovered species is eleven organic forms and three inorganic ones; among which are ten fresh-water formations and one marine formation, Textilaria.—*Pharm. Central Blatt* and *Phar. Jour.*

MEDICAL JURISPRUDENCE

A Case of Poisoning with Oil of Tansy—Death at the end of three hours and a half—Quantity of the Drug taken about $\mathfrak{z}\mathfrak{j}$ and $\mathfrak{z}\mathfrak{iii}$. By JOHN C. DALTON, Jr., M. D. (Read to the Boston Society for Medical Observation, June 2nd, 1851.)

E. S., a fine healthy-looking girl, about twenty-one years of age, died at the house of Mr. A., in Boston, on Wednesday, the 7th of May, 1851. She had been employed in Mr. A.'s family as a seamstress since some time in the previous winter, living in the house during the week, but going away on Saturdays to a cousin's in Pleasant street, and returning to Mr. A.'s on Monday morning. She had been for some months receiving the attentions of a young man who was reputed to be engaged to her. None of her friends, however, suspected anything to be wrong with her until Monday, May 5, when her cousin, with whom she had been spending Sunday as usual, perceived the odor of tansy in the room which she had occupied; whereupon it occurred to her that the girl might have become pregnant, and used the drug for the purpose of producing abortion.

On Tuesday, she was engaged in her ordinary employment, and dined heartily a little after five o'clock in the afternoon. She went up stairs to her room about half-past nine o'clock. The cook, who occupied a room above, went up with her and stopped in her room, conversing for some fifteen minutes. The girl's manner was perfectly natural and cheerful, as it had been throughout the day. About a quarter before ten o'clock the cook left her preparing for bed, and went up to her own room.

Nothing more was heard from her till about eleven, when Mr. and Mrs. A., who were sitting in the basement-room, heard a scream, which they supposed to come from one of the children. Mrs. A. went immediately up stairs, and on entering Miss S.'s room found her on the floor, by the side of the bed, insensible and in violent convulsions. She had evidently fallen out of bed, as she was undressed, and the bedclothes were disturbed, and had been partially dragged on the floor with her. Dr. Morrill was immediately sent for, and arrived in about ten minutes. He sent also for me, and I arrived at the house at half-past eleven o'clock.

The girl was then lying on her back by the side of her bed, and presented the following appearances: Total unconsciousness; cheeks flushed, of a bright, red colour; eyes open and very brilliant; pupils of equal size, widely dilated and immovable; sclerotics injected; skin warm, not remarkable as to moisture; respiration hurried, laboured, stertorous, and obstructed by an abundance of frothy mucus, which filled the air-passages, and was blown from between the lips in expiration; the breath

had a strong odour of tansy, as had been already observed by Dr. Morrill; pulse quite full, forcible, 128; at intervals of five to ten minutes the body was convulsed by strong spasms, in which the head was thrown back, the respiration suspended, the arms raised and kept rigidly extended, and the fingers contracted. After this state of rigidity had continued for about half a minute, it was usually succeeded by a tremulous motion, often sufficient to shake the room, together with very faint and imperfect attempts at inspiration. The whole interval from the commencement of the convulsion to the first full inspiration, varied from a minute to a minute and a-half. Occasionally, the tongue was wounded by the teeth, and the saliva slightly tinged with blood. Immediately after a convulsion the countenance was very pallid and livid, from the suspension of respiration, and the pulse exceedingly reduced in strength and frequency. The pulse and colour then gradually returned until the occurrence of the next spasm. It was very common, a few seconds after the termination of a convulsion, for the head to be drawn slowly backward, and the eyelids, at the same time, stretched wide open. In the intervals of the convulsions, the limbs were mostly relaxed, but the jaws remained clenched.

A vein was immediately opened in the right arm, and about Oij of blood taken away. After this, the pulse became much softer and the face lost its bright color. There was, however, no change in the condition of the pupils, nor return of consciousness, nor other improvement in the appearance of the patient. It being impossible to get anything down the throat, two injections of an ounce of wine of antimony, with about ʒss of powdered ipecac., were thrown up the rectum at intervals of about half an hour, but produced no apparent effect.

On searching the room, a ʒij phial was found in the pocket of the girl's dress, wrapped in a piece of paper, labelled "Oil of Tansy," and marked with the name and address of an apothecary in Pleasant street. The phial contained ʒv of oil of tansy of the ordinary purity. A mug was also found, from which she had apparently drunk the oil mixed with water, as it smelt very strongly of the drug, and still had a drop or two of it at the bottom.

The condition of the patient continued much the same for about an hour. The convulsions, however, gradually became less protracted, and the failure of the pulse after each attack, more complete, at the same time that it recovered strength less perfectly in the intervals. The countenance also became somewhat sunken and the temperature of the skin reduced. About 1 o'clock, six leeches were applied to the forehead and temples, and sinapisms put on the calves of the legs. The leech-bites bled freely.

Toward 2 o'clock the alteration for the worse became quite rapid. Pulse 124 and feeble; respiration 36, and attended with less muscular effort than at first: the left cornea was glazed, but the right continued brilliant; a little inward strabismus of the right eye, and the mouth and nose drawn a little to the right side. Occasionally, a slow, lateral, rolling motion of the eyeballs. At five minutes past two she had the last convulsion, which was much less violent than the earlier ones, and lasted only half a minute. There was no recovery of the pulse after this attack, and she died at a quarter-past two o'clock, A. M.

Autopsy ten hours after death.

Countenance natural; cadaveric rigidity very strong; only slight purplish discoloration of dependent parts; no ecchymoses anywhere; no effect had been produced by the sinapisms on the legs.

Head.—Scalp not injected; distinct, but not excessive dryness of arachnoid over hemispheres of brain; no effusion, congestion or other unnatural appearances anywhere about encephalon.

Chest.—Heart and pericardium natural; left ventricle firmly contracted; blood everywhere unusually fluid; interior of heart exhaled a distinct odor of tansy, as also cut surface of pectoral muscles.

No alteration of pleura; lungs rather shrunken, crepitated perfectly every-where, and were not at all engorged; air-passages not remarkable except for a little redness of posterior surface of epiglottis.

Abdomen.—Strong odour of tansy in peritoneal cavity; a few drachms of thin fluid in pelvis; peritoneum natural in appearance.

Esophagus natural internally, except that epithelium was somewhat deficient in lower part.

The stomach contained about $\mathfrak{z}\text{xij}$ of a semifluid, yellowish-gray substance, consisting of partially digested food, potato, cranberries, onions, &c., mixed with an abundance of small brownish-yellow, glistening oil globules, and exhaling an excessive odour of tansy; mucous membrane generally pale, not vascular in any part, but throughout nearly the whole of great pouch brownish and much thinned and softened, so that for a considerable space it is nearly or quite destroyed. There was an old, whitish, slightly puckered cicatrix of the mucous membrane on posterior wall of stomach, near small curvature. No other morbid appearance.

The lacteals of the mesentery were very distinct, and distended with milky chyle.

Small intestines were natural internally throughout. They contained, at their upper part, pasty masses of dusky-coloured chyme, mixed with oil of tansy.

Below, the contents were less abundant, and were unmixed with oil. Large intestine contained yellowish feces, and small masses of a brownish powder, apparently ipecac. Mucous membrane natural.

Spleen rather shrunken, flabby, and deficient in blood. Other abdominal organs not remarkable except for slight paleness.

Urinary bladder contained ℥ii to ℥iii of urine.

The uterus was enlarged, so that its upper edge came two and three-quarter inches above level of symphysis pubis. It contained a well-formed female foetus, about four months old.

There was not the least appearance anywhere of the foetus or membranes having suffered any disturbance.

The left ovary, which hung down a little lower than the right, had near its external extremity a small conical prominence, where the fibrous coat was wanting, and its place occupied by peritoneum alone. There was a very slight appearance here of a cicatrix, visible only on close inspection. There was no unusual vascularity here, or at any other part of the ovary. Beneath this prominence the corpus luteum could be felt through the ovarian tissue, tolerably firm and well defined, and having the form of a sphere, compressed laterally, much like that of the crystalline lens. On dividing the ovary longitudinally through the prominence, the corpus luteum was exposed. It presented a nearly circular section, measuring seven-eighths of an inch in its long diameter, and three-fourths of an inch in its short. It consisted externally of a convoluted wall, of a dull-yellow colour, measuring at its deepest part a little over three-sixteenths of an inch in thickness. The space enclosed by the yellow wall was occupied by a colourless, reticulated, fibrinous coagulum, which possessed a few minute vessels. This central coagulum was much compressed laterally; so that, although it presented a cut surface of about half an inch in diameter, it had hardly more than one line in thickness. There was no cavity nor fluid anywhere.

Both ovaries were carefully divided in every direction, but only one other body was found having any resemblance to a corpus luteum, and that was so small and imperfect as to be hardly recognizable. There were many Graafian vesicles in the interior of each ovary, varying in diameter from three-sixteenths of an inch downward but none at all prominent on the surface. Both ovaries were quite healthy.

It was subsequently ascertained that the oil of tansy was obtained, at the shop of the apothecary whose label it bore, on the evening of Friday or Saturday preceding the girl's death. The apothecary's clerk, who recognized the bottle, testified at the inquest that he put up in it ℥ij of oil of tansy, and delivered it to a girl about fourteen years old, who stated that the family that sent for it wished to take it into the country.

The patient, therefore, undoubtedly took $\mathfrak{z}\text{i}$ and $\mathfrak{z}\text{ij}$ of the drug. It seems probable that the violent action of the poison commenced at eleven o'clock, at the time the family heard the patient scream; and if we allow fifteen minutes for the absorption of the oil after it was swallowed, it would give three hours and a half from the time of taking the drug till the patient's death. Fifteen minutes may seem rather a long time for the operation of a volatile oil to be delayed, but it is probably no more than should be allowed. In a case which recently came under the notice of Dr. Dalton, of Lowell, a girl took a quantity of oil of tansy just before dinner. She then went into the dining-room, sat some time at the table, ate with apparent relish, felt sick, left the table, went into the yard, vomited what she had eaten, and immediately fell down insensible and convulsed. She recovered, after remaining a long time unconscious. The only other recorded fatal case of poisoning with this oil that I am acquainted with also occurred in Boston, under the care of Dr. C. T. Hildreth, and was published in the *American Journal of Med. Sciences* for May, 1835. In that case the woman took $\mathfrak{z}\text{ss}$ of the drug, and did not lose consciousness entirely till three-quarters of an hour afterward, although she was convulsed at intervals before that time. After unconsciousness became complete, she did not again recover it, and died rather less than two hours after taking the poison.

The present case is another instance of the extreme violence to which the system may be subjected even in the early months of pregnancy, without inducing abortion. Though all the muscles, both of the body and limbs, were for three hours and a quarter subjected to a succession of the most violent contractions, there was no sign of abortion, and after death the ovum was found in the uterus entirely undisturbed. In Dr. Hildreth's case, also, pregnancy existed but a few weeks advanced, and the drug was undoubtedly taken for the purpose of producing abortion, but nothing of the kind took place. The general symptoms in that case were similar to those described in the foregoing, the most remarkable difference being the more gradual loss of consciousness, and the more rapid death after a much smaller dose.—*Am. Jour. Med. Sciences.*

Am. Jour. Med. Sciences. Vol. 1. No. 1. 1835. p. 100. The case of a woman who took oil of tansy for the purpose of inducing abortion, and died of the effects of the poison, is recorded in the above work. The patient was a young woman, who had been married for some time, and was in the early months of pregnancy. She took a quantity of oil of tansy, and after some time, she became insensible and convulsed. She died a few hours after taking the poison. The case is recorded in the above work, and is a very interesting one.

Canada Medical Journal.

MONTREAL: SEPTEMBER, 1862.

DR. LATIERE'S MEDICAL BILL.

We give below, the substance of this bill, but as we have promised to eschew all questions of a merely party character, we shall refrain from making any observations upon it. It will not meet the evils we spoke of in a former number, for it will bear upon one of our Colonial Universities only, whereas the graduates of the other two, being exempt from examination before the Provincial Board, will thus acquire a great advantage over those of McGill College, and we shall still have the same number of licensing bodies in Canada. The clause referring to military and naval surgeons, comes in very *mal à propos*, at this moment, when the Colleges of Surgeons of England, Ireland, and Scotland, are remonstrating with the Army Medical Board, for dispensing with a surgical diploma as a necessary qualification for admission into the service.

We perceive that our Upper Canada cotemporary advocates but *one* licensing board for that Province. Why does he not go further, and recommend but one for both Provinces:—The members could meet once every half year, alternately at Montreal and Toronto, as at present the Governors of the College of Physicians and Surgeons meet alternately at Quebec and Montreal. With only one licensing board, we would have *uniformity of medical education*, which can never be maintained with five licensing bodies, for students will flock to that Institution whose curriculum is most easy of completion, and whose terms are most moderate, and hence we shall have a rivalry between our Universities, to furnish the lowest and cheapest modicum of medical instruction, and that institution will become most popular, whose fees are lowest, and whose examinations are most lenient; and a system of touting will be practised all over the country by the agents of these bodies. All this can be obviated by the plan we proposed.

BILL.

An Act to Amend the Law relative to the practice of Physic, Surgery and Midwifery, in Lower Canada.

WHEREAS it is inexpedient that any person should obtain a license to practise Phy-

sic, Surgery or Midwifery in Lower Canada, without undergoing an examination before the Provincial Medical Board: Be it therefore enacted, &c.

That the seventh section of the Act passed in the Session held in the tenth and eleventh Year of Her Majesty's reign, and intituled, "*An Act to incorporate the members of the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein*," shall be and is hereby repealed.

And be it enacted, That for and notwithstanding any thing in the said Act, or in the Act amending the same, passed in the twelfth year of Her Majesty's reign, and intituled, "*An Act to amend the Act to incorporate the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein*," no person shall, after the passing of this Act, receive a license from the Provincial Medical Board to practise Physic, Surgery or Midwifery in Lower Canada, unless he shall have undergone an Examination before the said Board and obtained a certificate of qualification from the said Board; Provided always, that nothing in this Act shall apply to females practising Midwifery in Lower Canada under the provisions of the Act first above cited; Provided also, that any person who shall have served in Her Majesty's Army or Navy, being on half pay, and producing his diploma or his Commission in the service as such, to the Provincial Medical Board, may obtain a Licence to practise Physic and Surgery without being bound to undergo an Examination.

Aromatic fluid extract of Senna.—We have received from Dr Hall, Lecturer on Materia Medica McGill College, a sample of the above fluid extract, prepared in accordance with a process of his own, by which the resinous matter, bitter extractive and volatile oil, principles, upon which the griping qualities, and nauseous taste and odour of the drug depend, are almost wholly removed, the extract presenting a preparation, superior far to the fluid extracts ordinarily in use, while the judicious combination with aromatics considerably improves the flavour, and renders the medicine an exceedingly palatable one. Dr. Hall has informed us of the principle concerned in its manufacture, and we conceive him perfectly correct in its application. We have tried it in several cases, and have found it answer our best expectations, being mild in operation, and devoid of all unpleasant taste, and effects. It is reduced to such spissitude that one fluid drachm represents the ordinary infusion from one drachm of the leaves. Its strength is therefore determinate, which is also an improvement upon the ordinary extracts now employed. We understand that Dr. Hall will shortly order its preparation on a large scale, and place it in the hands of the Profession, as a substitute for the common and nauseous senna tea, so much used as a domestic remedy.

Low Fees—Breaches of the Medical Tariff.

DEAR MR. EDITOR,

It must be fresh in your memory, that about seven years ago, a tariff of fees was agreed to, and signed by nearly all the practitioners

of this city, who thus pledged themselves to the adoption of its rates. These fees were such as had been charged in this city by all respectable physicians for the last 50 years. The public grumbled of course when they were published, although it had unarmingly submitted to them, for that long, or even a longer period of time. Hence the folly of having disturbed such blissful ignorance. With that, however, I do not intend to meddle, but it seems to me an extraordinary circumstance that medical men, who therein emphatically pledged themselves to each other, should have subsequently deviated from their plain and honest course of action, and have attended, even cases of midwifery, for fees less far than have been charged by a veterinary surgeon for the delivery of a mare or a cow, those fees usually being from 10s. to 20s. This analogy was forcibly brought to my mind the other day, when a patient of mine, of old standing, came to advise me of his wife's early accouchement, and wished to know my fee for attendance. It was a 2nd class case, the fee for which was placed at £3, but aware of the pecuniary difficulties of the party alluded to, I offered my services for £2. He then told me that Dr. ———, who enjoys a large practice in the Quebec Suburbs, had attended his partner's wife for £1, including subsequent visits. He urged the acceptance of that fee, which I respectfully declined, expressing to him the sincere desire which I felt not to be ranked exactly on the same level with the veterinary surgeon or the midwife. I furthermore informed him that I was not responsible for the value which Dr. ——— placed upon his professional skill, but that if such was really his fee, ordinarily exacted under such circumstances, he probably estimated his services at their intrinsic value. This reminds me of another circumstance connected with the same party:

Last winter I was requested by the mother of a lady, whom I had twice attended, to state the fee which I ordinarily expected in first class cases, I mentioned the sum of £5. On demanding her reason for this enquiry, I ascertained that the question had been put at the request of the wife of a gentleman connected with one of the military departments in this city, who had been on a previous occasion attended by this same practitioner, his charge having been £1. The gentleman was fully able to pay the fee of £5, and most unquestionably would have been charged by Mr. Mason, V. S., 20s. for the delivery of his mare or cow. I need not say that this lady has again selected Dr. ———, whose chief recommendation seems to consist in the *lowness* of his charges. I am informed that the same practitioner does not scruple to accept of 10s. or even less, and that he has done so on more than one occasion.

I avoid, Mr. Editor, the party's names, but they are at your service if you wish them. My only motive in writing, is to expose a violated pledge, and denounce a practice derogatory to the dignity of our pro-

fession. God knows, we have quacks enough both in and out of it, and men professionally dishonorable in more ways than one. An unlicensed practitioner in the Quebec Suburbs, who has been notoriously practising there for several years past, and once, as I am informed, came fearfully near the Coroner's clutches for his treatment of a case of "*purpular convulsion*," actually places his services on the same level with those of Dr. ———, and charges the same fees. No, sir, when on all sides, even for years past, such active steps are taken to advance our science as a dignified profession, all such practises run counter to the general scheme, and while we are striving to raise it, others are practically degrading it to the level of the quack, or the ignorant midwife, or to that of the veterinary surgeon, who is more unpretending, and far less mischievous because limited in his sphere of action to the lower animals.

IATROS.

Montreal, 23rd August, 1852.

His Excellency the Governor General has been pleased to grant a License to Thomas Beatty, of Toronto, Gentlemen, and to James Carroll, of Norwichville, Gentleman, to practise Physic, Surgery and Midwifery in that part of the Province called Upper Canada.—*Quebec Gazette*, 1852.

NEWS FOR THE DOCTORS.—The Royal College of Physicians has received a new charter, by which its designation is changed from that of "Royal College of Physicians of London," to that of "England;" and its "licentiates," no longer so termed, but "members." All medical practitioners will be eligible to be admitted to its membership who possess the degree of "M.D." from any university in the United Kingdom, or have received license to practice from the Universities of Oxford, Cambridge, Dublin, or Edinburgh.

LAW AND LITERATURE IN FRANCE.—The tender care of the interests of authors, which the French tribunals take pleasure in displaying, has been again exemplified this week. A physician was employed to write an article on "*Medecine*," for an encyclopædia now in course of publication. The editor modified some portions of the article, and cut out others; and then declined to pay for more "copy" than was actually used. The physician brought an action, and the court laid down that an editor has no right whatever to alter or abridge an article without the author's consent. It accordingly condemned him to cut out the article from the copies of the encyclopædia still unsold, and to replace it by the one originally written, to print sufficient copies of the latter to send to all the subscribers of the work, and to pay the author the full value.—*Athenæum*.

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.443
1 Centimètre.	4½ Lines.	0	0	4.433
1 Décimètre.	3 Inches 8 Lines.	0	3	8.830
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Old Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
<hr/>				
The English Inch.	2½ Centimètres.	25 Millim.		899
The English Foot.	30 Centimètres.	304		794
The Yard. (3 Feet.)	91 Centimètres.	914		888

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	½ Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	3	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	85.15
Old Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 centigrammes.	0	Grammes		088
1 Gros.	4 rammes.	8			82
1 Ounce.	80 Grammes.	80			59
1 Pound.	500 Grammes.	489			50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 39.370788 inches. 3.280899 feet. 1.093633 yard.
Décimètre, 1-10th of a mètre	3.937079 inches.
centimètre, 1-100th of a mètre	0.393708 inch.
millimètre, 1000th of a mètre	0.03937 inch.
Measures of Weight.	
Kilogramme, weight of one cubic decimètre of water of the temperature of 39° 12' Fahr.	{ 2.6808 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5488 grains troy. 0.9719 scruples. 0.032 ounce troy.
Décigramme, 1-10,000th of a kilogramme	1.5488 grain troy.
Centigramme, 1-100,000th	0.1548 grain troy.

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ORIGINAL COMMUNICATIONS.

ART. XXXVIII—*Case of Pleuritis and Gangrene of the Lung, caused by a blow on the chest without fracture of the ribs, combined with abscesses of the Brain.* By ALFRED JACKSON, ESQ., L. R. C. S. E., Visiting Physician to the Marine and Emigrant Hospital, Lecturer on Clinical Surgery, Medical School, Quebec, &c., &c.

MARTIN CONNOR, a Sailor on board of the Brig *Safeguard*, aged 17 years, was admitted to the Marine Hospital on the 3rd August.

States that about ten weeks ago the Brig was discharging coals in Limerick, "I was then in good health, I was in the hold assisting the men to discharge the cargo, when from carelessness in the manner in which it was done, pieces of coal occasionally dropped upon us, exposing us to serious injury. I remonstrated with the mate, who was on deck, who told me to mind my own business; angry words ensued, upon which he came to the hold and struck me with his fist on the head and knocked me down, he then returned to the deck, and I resumed my work, more angry words were then exchanged, and he, the mate, threw a piece of coal the size of the fist (by a witness the size of a hen's egg) at me, which struck me on the left side over the ribs, it did not knock me down, but it hurt me severely, and from that moment, I have continued to feel more or less severe pain in my side; the pain was accompanied by cough and spitting of bloody sputa. After a time, the sputa became still more bloody. The next day after the accident I resumed my work, but after a few days I was obliged to knock off, and was unable to do duty all the passage out, which lasted eight weeks."

Present appearance, August 3,—Much emaciated, face and surface of body pale, anæmic; feels but little pain in the side, and that only in coughing, no ecchymosis of side, pulse small and hard, skin dry, harsh, tongue moist. clean, slightly red at the edges, appetite tolerable, bowels

regular, slight headache, troublesome cough, with most abundant expectoration of viscid mucus, darkly tinged with blood, having a most fetid smell. The matter expectorated amounts to about 12 or 14 ounces a day, respirations 30, decubitus on the back.

Physical signs:—right side of the chest normal. Left side somewhat fuller than right, near the seat of injury; sound on percussion, clear with the exception of a portion of the base of the lung where there is complete dulness, this dulness extends towards the spine and is quite circumscribed, no respiratory murmur heard over dull portion; respiration bronchial over the superior portion of the lung, no egophony, action of the heart natural, all over the left side. *Diagnosis*; pleuritis with limited pleuritic effusion, and probably gangrene of the lung. To have beef tea, and a weak solution of tartar emetic every four hours—4th, much the same; 5th, passed a bad night, bowels loose, does not like the beef tea, discontinue the tartar emetic; to have Calomel, gr. 1, opium gr. $\frac{1}{2}$, Tartar Emetic gr. $\frac{1}{2}$ every four hours, and milk diet. 6th, 7th and 8th, much the same, medicine continued; perspires freely at night, very little or no pain of head, tongue moist, bowels continue loose; expectoration less in quantity but more fetid, so much so, that the rest of the patients complain of the unpleasant odour in the ward, the breath is likewise very offensive, physical signs much the same: no longer any doubt respecting gangrene of the lung. 9th, during the night he was seized with a fit resembling epilepsy which lasted sometime, and left him with partial paralysis of the left side; during the day these fits returned two or three times, and assumed more the appearance of convulsions, he is perfectly sensible during the absence of the fit: never to his knowledge had fits before. On the 10th, the fits were more frequent but did not last so long, on the 11th, 12th, 13th and 14th, the fits were less frequent but continued a longer time, perfectly sensible during the interval, says that he feels them coming on, and refers the sensation to the left side. Complains that he cannot sleep at night; much weaker. To have a table spoonful of the following mixture every four hours:—camphor mixture four ounces, acetate of morphia gr. 1. On the morning of the 14th, he expectorated or rather vomited about two pints of a greenish sero-purulent fluid, mixed with a whitish curd-like substance, of an extremely fetid odour, this kind of expectoration continued to be discharged pretty abundantly for two or three days. From this moment the fits were less frequent in number, and milder in character, the dulness of chest became less, and more limited in extent; no metallic tinkling could however be perceived. He continued to get weaker from day to day, though he was ordered wine, camphor and chicken broth, until the evening of the 18th when he died, retaining his mental facul-

ties to the last. The two days preceding his death, he had but one fit each day.

In consequence of a deposition made by the patient before the police magistrate, as to the manner in which the injuries were received, the mate of the ship was apprehended, and held to bail pending the termination of the case.

On the 19th of August a coroner's jury was empannelled, and Doctor Blanchet and myself were ordered to examine the body.

Post-mortem examination fifteen hours after death.—Body very much reduced; no external marks of violence; on exposing the ribs over the injured side, they appeared natural and healthy. On opening the chest, the pleura pulmonalis and pleura costalis of the left side, were found adherent over the diaphragm; and at the point corresponding to the centre of the sixth and seventh ribs, so firmly, that they could with difficulty be separated; the parts were discolored and the remains of a pleuritic effusion, limited in extent, by other, but less firm, adhesions, surrounded this point. The ribs themselves at the point referred to, were denuded in spots, and rough, as if new bony matter had been deposited, leading one to suppose that fracture had really existed; but upon making a longitudinal section of the diseased portion, it was perceived that this appearance was confined to the surface, the cancellated structure being intact. In that portion of the lung in the immediate vicinity of the adhesions mentioned, there existed a cavity capable of containing fifteen or twenty ounces of fluid; this cavity was partially filled with matter similar to that expectorated, and contained moreover a portion of cellular substance about three inches in length, and one and a half in thickness, evidently a portion of gangrenous lung, the parenchyma so much broken down as to resemble an ordinary slough. The cavity was bounded by well-defined walls of softened and discolored lung, and had none of the appearances of scars left by softened tuberculous matter; it communicated by a small opening with the pleuritic deposit, and with several of the bronchial tubes, the latter were perfectly healthy; the rest of the lung was slightly condensed, but crepitating throughout. No trace of tubercle could be found. Right lung healthy with the exception of slight adhesions. Heart normal, liver perfectly healthy, but several small spots of a yellowish colour were seen on its peritoneal covering, these spots extended about half a line in depth; stomach, bowels, spleen, kidneys, &c., perfectly normal.

On removing the scalp, an old injury of the frontal bone, an inch in length, was brought into view, it had the appearance as if the external table had been fractured, and filled up by new bony matter; on the scalp, a cicatrix corresponding to the injured bone, evidently of some

standing, was also discovered. On removing the calvarium, pus in small quantity escaped from between the bone and dura mater, the pus seemed to be situated over the right orbital plate; internal portion of frontal bone slightly diseased, dura mater not thickened. On removing dura mater, a discolored spot, the size of half a crown, was seen through the arachnoid (which was healthy and transparent) on the top of the right hemisphere; a similar spot at the base of same hemisphere. On dividing the arachnoid and parts superiorly, an abscess containing several ounces of straw colored pus was found, this abscess occupied the centre of the whole of the middle lobe, communicated with the lateral ventricle of same side, and through it, with another large abscess at the base. A third abscess containing about three ounces of pus, was found in the left hemisphere. Beyond this pus, which seemed to be contained in well defined sacs, the substance of the brain appeared perfectly healthy and of natural colour and consistency. Cerebellum, normal, medula spinalis, do. No purulent matter was found in any other part of the body, although the different textures, including the large joints, veins, &c., were carefully examined.

The evidence given at the inquest went to prove, that the deceased was in tolerable health, but rather pale and weak, previous to the receipt of the injuries mentioned. That he did not bleed, neither was he stunned, when he was struck with the fist on the head. When struck with the coal he was in the hold about fifteen feet from the mate, who was on deck; the piece of coal was about the size of a hen's egg, and thrown with considerable force.

The reader of the above case will no doubt perceive, independently of its many interesting pathological features, its important bearings in a medico-legal point of view, and the difficulty necessarily experienced by the medical witness in arriving at a just conclusion respecting the immediate cause of death. The following highly interesting questions naturally suggest themselves:—Whether in this case the fatal result ought to be attributed to the disease in the chest or to that in the brain, or to the influence of both? Whether the two diseases are separate and distinct, or stand in reference to each other in the relation of cause and effect? To which of the two diseases give precedence?

I have no doubt from post mortem appearances, that the disease in the chest was caused by the blow on the side, but whether this disease was not modified and made more severe in character by previously existing disease in the brain, is I think, questionable.

I am inclined to believe that the disease in the brain existed at a date anterior to that of the receipt of the injury of the side, in this opinion I am supported by the old injury found on the skull, and the disease on

the internal aspect of the frontal bone. In giving my opinion of the cause of death, I did so, guided by these facts, I stated :—that the deceased, Martin Connor, died of protracted disease of the left lung and brain, and that the disease of the left lung was caused by a blow inflicted on the chest ; that in the absence of disease of the brain, I would have no hesitation in stating, that the disease of the left lung was the cause of death, but in view of the disease existing in the brain, I cannot state positively of which disease he died.

Doctor Blanchet differed from me slightly in opinion ; he was under the impression that the abscess of the brain, was consequent upon the affection of the lung ; he stated :—

The deceased, Martin Connor, died from purulent infection of the system, caused by the inflammation of the lung and pleura, accompanied with gangrene of the left lung ; and I am of opinion that the inflammation of the pleura and lung, have been occasioned by a blow inflicted upon the left side of the chest ; but the same cadaveric lesions may be seen in the same disease which might have been occasioned by the ordinary causes of disease.

VERDICT.

We, the undersigned Jurors, are of opinion that the deceased, Martin Connor, came to his death from natural causes, to wit, of inflammation of the lungs and brain.

Signed by fourteen Jurors.

That the deceased Martin Connor, come to his death from disease of the lung caused by injury to the left side.

Signed by two Jurors,

Quebec 19th August, 1852.

ART. XXXIX.—*Quelques observations sur le traitement de la Péritonite Puerpérale par le mercure à haute dose.* J. G. BINAUD, M. D. Prof. d'Anatomie E. M. M. Médecin de l'Hôtel-Dieu, et Membre du Bureau de Médecine.

MESSIEURS,—Vous engagez les médecins à se prévaloir de votre intéressant journal pour servir les intérêts de leur profession, suivant la nature de leurs études et leur expérience. Pourquoi ne pas profiter de ce moyen qui est presque le seul en ce pays de lui rendre quelque service durable. La science médicale, malgré ses progrès ou plutôt à cause de cela n'a pas dit son dernier mot sur beaucoup de questions que les travaux des hommes instruits de quelque part qu'ils soient, peuvent contribuer à éclaircir. Ainsi on ne peut nier que bien des faits pathologiques, instructifs sous plus d'un rapport, que fournit la

pratique des médecins des campagnes restent perdus pour la science et improfitables à leurs confrères quand il en devrait être autrement. On m'a fait part quelquefois de cas de ce genre qui, s'ils eussent été rapportés sans déguisement ni exagération, mais avec la sincérité et la vérité qui font le vrai mérite des écrits scientifiques et qui assurent la confiance à leurs auteurs, pourraient devenir d'intéressantes études et par tant d'utiles renseignements pour procéder à de nouvelles investigations. Ce genre d'apathie sied mal, ce me semble, au caractère du médecin qui est sensé se dévouer par inclination et par devoir à l'avancement d'une science qui a pour but le bien de nos semblables.

Mais je dois laisser à la rédaction de votre journal le soin d'appuyer sur les motifs qui doivent porter les médecins à écrire; et en venir au sujet de cette communication l'emploi des mercuriaux à haute dose dans la curation des phlegmasies et notamment de la fièvre puerpérale.

Ce fut en 1845 qu'on essaya à Montréal ce nouveau mode et j'eus alors occasion d'en observer les effets à l'hospice de la Maternité attaché à l'Ecole de Médecine. Dans le cours de Matière Médicale que je professai à cette école, cette même année, j'exposai mes vues sur élèves sur cette médication. N'ayant point trouvé de raisons de les modifier depuis j'emploierai ici le même langage.

“ En terminant ce que j'avais à vous dire de l'action antiphlogistique-altérante des mercuriaux, je veux attirer votre attention sur une méthode toute récente d'administrer le calomel dans le traitement de la fièvre puerpérale. Cette méthode consiste à le prescrire à la dose énorme de 30 à 40 grs, à des intervalles de 6 à 12 heures, afin que, en peu de temps il y en ait assez d'absorbé pour modifier l'état phlogistique du sang et juguler, comme on dit, l'inflammation péritoniale. Je désire d'autant plus vous induire à réfléchir sérieusement sur ce traitement qu'il a été reçu d'abord avec un empressement et un engouement toujours regrettables lorsqu'ils se rencontrent chez des hommes que leur caractère de gravité devrait prémunir contre le prestige de la nouveauté et que l'expérience a dû instruire suffisamment pour leur montrer le danger de la précipitation et de l'enthousiasme.

“ Nous avons vu ailleurs que le caractère du sang dans l'inflammation est d'être plus épais, plus rutillant parcequ'il est devenu plus riche en fibrine et en globules rouges. Or le mercure possède à un fort degré, la propriété de diminuer la rutillance du sang. En d'autres termes, il le rend d'une fluidité d'autant plus grande qu'il s'y mêle en plus grande quantité. C'est pour obtenir cette condition incompatible avec la persistance de l'inflammation qu'on recommande sans crainte la saturation mercurielle. Dès qu'elle a lieu, on voit la fièvre s'abattre,

la douleur diminuer beaucoup et même disparaître, ainsi que la tension du ventre. Mais direz-vous, un abaissement aussi prompt des symptômes les plus graves n'est pas chose commune par la médication ordinaire. Il explique raisonnablement la confiance et la sécurité qu'inspire, la satisfaction que produit un tel traitement. Oui, s'il était possible de savoir à quelle époque précise suspendre l'administration d'un remède qui, loin d'être indifférent en soi, est de nature au contraire à laisser des traces fâcheuses et durables de sa présence pour peu qu'il dépasse les limites de son influence curative. Mais tel n'est point le cas, et nul médecin n'oserait prétendre lui assigner ces limites sans jamais les dépasser. Or voilà le danger, et le mercure s'éliminant avec lenteur et difficilement plus il se trouvera en excès plus aussi les altérations seront profondes et durables. Ce n'est pas qu'en ne puisse se flatter de succès lorsqu'une amélioration s'annonce, comme je viens de dire, dans une inflammation franche et chez un sujet offrant toutes les conditions favorables, un tempérament en quelque sorte réfractaire à l'influence mercurielle. Mais je puis assurer que les faits venus à ma connaissance prouvent jusqu'à l'évidence qu'il peut devenir un arme dangereuse et souvent mortelle s'il est appliqué à tous les cas de fièvre puerpérale aigue.

“ L'hiver dernier je fus requis par un confrère d'aller juger par moi-même des heureux résultats qu'on obtenait à la maternité par ce mode de traitement. Je m'y rendis libre de toute prévention ou plutôt favorablement disposé à en devenir partisan car je n'en avais encore entendu que des éloges. Le Dr. M. y faisait alors le service. Trois femmes atteintes de la fièvre puerpérale avaient été mises l'avant-veille au traitement par le calomel. L'une qui me parut d'un tempérament fort, et peu abattue par la maladie se tenait debout au pied du lit. Je ne sais quelle quantité de mercure elle avait prise, mais on la regardait comme convalescente. Chez les deux autres, dont l'une en était rendue à 140 grains, l'état aigue de l'inflammation avait disparu. Un seul symptôme m'avait laissé des doutes, j'avais observé que l'une d'elles avait la langue épaisse et rembrunie, et je crus un état typhoïde probable. Je ne me trompais pas, seulement les résultats dépassèrent mes prévisions, car deux de ces femmes étaient mortes dès le lendemain de notre visite : celle qu'on disait convalescente et celle que j'avais examinée. Après les changements survenus la veille, l'abaissement de la fièvre, le ralentissement du pouls, la mollesse du ventre et son peu de sensibilité à la pression, pouvait-on expliquer l'issue fatale par la marche ordinaire de l'inflammation ; on ne le pouvait pas. La seule

raison qu'il me paraît possible de tirer de ces tristes conséquences, la surabondance du système, l'emprisonnement mercuriel avait

produit une corruption de la crase du sang tellement profonde que les forces vitales avaient été anéanties.”

“ Ces trois femmes avaient-elles été atteintes de péritonite puerpérale bien caractérisée. On pourrait en douter, raison de plus pour croire à la difficulté d'apprécier les chances plus ou moins incertaines de cette médication. Elle n'est pas même sans danger, suivant moi, dans les cas le plus franchement inflammatoires. Lors même qu'il ne serait pas aussi promptement mortel qu'il le fut chez les patients dont je parle, le mercure modifie trop puissamment les fluides de l'économie pour ne pas craindre encore ces effets lents ou éloignés. Cette médication doit être proportionnée, comme antiphlogistique, à l'intensité de l'inflammation et à la force du tempérament. Il ne peut y avoir de doute pour moi que le mercure poussé plus loin qu'il ne faut pour prévenir les exsudations plastiques produit la dissolution du sang, et le rend impropre à la nutrition. De là un collapse rapide ou tout au moins un état thyphoïde, une cachexie hydrargirique qui aggrave beaucoup le pronostic de la phlegmasie. En outre, l'affaiblissement résultant de l'inflammation elle-même, ne permet pas de compter sur les forces de la malade pour la soutenir jusqu'à ce que le travail d'élimination du mercure soit achevé.”

Le temps ne me permet pas de rien ajouter aujourd'hui à ces remarques. La discussion de cette importante matière pourrait m'engager à y revenir ; j'ajoute seulement que mon opinion est restée la même et que je la crois basée sur une connaissance suffisante des vertus dynamiques et physiologiques des mercuriaux et sur une observation raisonnée des résultats que peuvent produire la méthode en question ou toute autre méthode d'administrer cet utile remède.

ART. XL.—*Cas d'invagination, par le Docteur L. D. LAFONTAINE.*

J'ai eu l'opportunité d'examiner *post mortem* le corps de J. D. de Saint Jacques le Mineur, malade depuis le mois d'août dernier. On croyait dans le voisinage que le défunt avait avalé, soit une grenouille ou un lézard en buvant dans quelques fossés, parcequ'il ressentait des tumeurs dans l'abdomen qui lui paraissaient se mouvoir, cette rumeur était tellement accréditée parmi les gens de la campagne, qu'on s'attendait à chaque instant, pendant l'examen, voir sortir l'animal encore vivant. Le malade avait consulté plusieurs médecins recommandables de la ville et de la campagne, et il y avait eu entre eux diversité d'opinions sur sa maladie ; les uns pensaient qu'il y avait rétrécissement du canal intestinal dans quelques unes de ses parties et d'autres croyaient

qu'il y avait invagination, ce qui était vraiment le cas. Ayant été averti trop tard du consentement de la famille pour me donner le temps de me procurer l'assistance de quelques uns de mes confrères, je me suis rendu mardi matin, 18 du courant, au domicile du défunt, mort le 16 au matin, et j'ai procédé à l'autopsie comme suit : Ayant mis à découvert les viscères thoraciques et abdominaux mon attention s'est portée sur les intestins y découvrant des traces d'inflammations en plusieurs endroits. J'aurais dû vous dire que n'ayant jamais visité le malade pendant sa maladie, mais ayant appris qu'il y avait constipation opiniâtre et vomissement presque à chaque fois que le malade avalait quelque chose je m'attendais de trouver ou cancer de l'estomac ou quelques maladies chroniques du foi. Au contraire ayant avec précaution sorti les intestins j'y ai découvert des tumeurs de différentes grosseurs, une surtout qui était aussi grosse qu'un œuf de dinde, elles étaient six en nombre, il n'y avait pas moins de 15 pouces d'intestins invaginés dans cette tumeur, les petits intestins seuls présentaient des traces de maladie, quoique partout le duodenum en fut exempt. Tous les autres viscères étaient remarquables par leur mollesse et leur flaccidité, le foie était ramolli et considérablement atrophié et un peu gros. L'estomac avait une dimension extraordinaire, il était rempli de liquide, sans doute le breuvage qu'on avait donné au malade, les parois, à l'orifice pylorique, étaient au moins épaissies de $\frac{1}{2}$ de pouces, les poumons étaient de couleur violacée, et le ventricule droit du cœur contenait un peu de sang liquide, ses parois étaient assez molles pour permettre de passer le doigt à travers sans difficulté, enfin tout le système présentait l'apparence d'anémie générale.

Si vous croyez que ce cas puisse intéresser quelques uns des membres de la profession, publiez le et ajoutez y les remarques que vous croirez propres.

ART. XLI.—*Reminiscences of the Siamese Twins.* BY A VON IFFLAND, M.D. &c.

On looking over, a few days since, some loose papers, my attention was attracted to one, headed, "condensed observations on the Siamese Twins, now exhibited at Quebec, 1835," but from the length of time which has since elapsed, I cannot bring to my recollection whether this paper originated from my own personal inquiries and examination, at the times of visiting them, or is partly, a mere relation of facts by the gentleman, then in charge of these extraordinary objects of *lusus naturæ*. The paper, however, if not novel, may prove not the less interesting to the junior members of the profession, and in that view, I place it at their disposal.

The twin brothers were born of Chinese parents, in 1811, at a small village in Siam, distant about sixty miles from Bangkok, the Capital of the Kingdom. When the intelligence of their birth reached the ears of the King of Siam, he gave orders that they should be destroyed, as portending evil to his government; but he changed his intention, and suffered them to live, on being assured that they were harmless, and would be capable of supporting themselves by their own labour. In 1824, Mr. Robert Hunter, a British merchant resident at Siam, saw them for the first time in a fishing-boat on the river, in the dusk of the evening, and mistook them for some strange animal. It was only in the spring of 1829, that permission could be obtained from the Siamese Government to bring them to England. They were taken to Boston, U. S., where they landed sometime in August, the same year, and six weeks afterwards, embarked for England, and arrived in London in November.

They are both of the same height, namely, five feet two inches; and their united weight is 180 lbs. Their bodies and limbs are well made. The band of union is formed by the prolongation and junction of the ensiform cartilages of each, which meet in the middle of the upper part of the band, and form moveable joints with each other, connected by ligamentous structures. Underneath the cartilages, there appear to be large hernial sacs opening into each abdomen; into which, on coughing, portions of the intestine are propelled as far as the middle of the band; though, in ordinary circumstances, these hernias are not apparent. The entire band is covered with common integument; and when the boys face each other, its length at the apex is one inch and three quarters, and at the lower edge not quite three inches. Its breadth from above downwards is four inches, and its greatest thickness nearly two inches. In the centre of the lower edge there is a cicatrix of a single navel. It possesses little sensibility, and is of great strength, for upon a rope being fastened to it, the twins may be pulled along without occasioning pain; and when one of them, is lifted from the ground, the other will hang by the band alone, without sensible inconvenience. For the space of about half an inch from the medial line of the band the sensibility of the skin appears to be common to both. A silver tea-spoon being placed on the tongue of one of the twins, and a disk of zinc on the tongue of the other, the moment the two metals were brought into contact, both the boys exclaimed "*sour, sour,*" thus proving that the galvanic influence passed from the one to the other through the connecting band. Another simple but clever experiment, proved that the sanguineous inter-communion was not common to the two.

Their strength and activity are very remarkable. They can throw down with perfect ease a powerful man. They run with great swiftness, bend their bodies in all directions, and in their sports often tumble head over heels without the least difficulty or inconvenience. In all the bodily actions in which the concurrence of both is required, they exhibit a wonderful consent, or agreement, without the appearance of any previous communication of their intention. The intellectual powers of each are nearly equal; and they have both attained the same degree of proficiency in the games of chess, draughts, and whist. They both possess great powers of imitation. In their respective physical constitutions, however, several differences are observable. Chang, as the boy on the left is named, has more vigorous health, and greater regularity of functions, than his brother, whose name is Eng. In general, they take their meals, and obey the calls of nature, at the same time. In their healthy state, their pulses are generally alike, and are easily excited; but that of the one may be accelerated, while that of his brother continues calm.

In their habits, they are very cleanly and delicate; in their disposition, affectionate and grateful for every kindness shewn to them. There exists between them the most perfect harmony. They always fall asleep at the same moment; and it is impossible to wake the one without also waking the other.

Every access is afforded to men of science, for promoting any object of philosophical inquiry.

ART. XIII.—*Post Mortem Appearance in a Case of Morbus Cordis.*

By A. VON IFFLAND, M. D., &c.

In the month of August, 1851, I was called by a Coroner's Jury, to investigate by *post mortem examination*, the cause of death in a man, named Jacob, of the Parish of Ange Gardien, a congenital idiot, and also epileptic, aged about 40, and who had been found lying dead in a field, near the beach of the St. Lawrence, on the day previous. The body was extremely emaciated, and had, to all appearance, sunk under inanition. On examining the stomach and intestines, I found them healthy and nearly empty, but the mitral valves of the heart, were so remarkably thickened, that it was a matter of great astonishment to me, how the wretched man could have lived so long; there was also a coagulation in the lungs, and in the heart itself, behind the obstruction. In this case, for some time previous to death, the system must have been supplied with blood, not in a current, but drop by drop, proving

how small an impulse of the heart is sufficient, under ordinary circumstances, to maintain life. And hence, some light may be thrown on the nature of trances. It has already been a subject of reproach, that we are apt to consider the functions of the heart too simply; they should be studied, not only with regard to the peculiar office of the heart, as regulator of the circulation, but with reference to the relation it bears to the lungs and other parts of the system. I believe, I am not singular in entertaining the opinion, that several diseases of the heart may be traced to moral causes, and the influence of the passions; and, if it be true, as some assert, that these diseases, are now more frequently seen than formerly, may they not originate from *suppressed* emotion, or from the necessity of repressing the feelings, in a state of refined society? The members of our profession, as men of high classical attainments, are aware of the many beautiful passages that might be quoted from the poets, Homer, Sophocles, and especially, Shakspeare, descriptive of the effects produced upon the heart by the influence of the passions.

Shakspeare, the graphic delineator of human nature, in all its gradations, it must be admitted, was a perfect physiologist: his descriptions are as sound in fact, as charming in expression, and had he been a Physician, he would have anticipated Harvey. From the effect of moral causes to produce disease, was deduced the wisdom of our ancestors, in assigning to the Physician the best and highest education which could be effected; he ought in fact, not only to be acquainted with physical science, but moral philosophy. Medical study, cannot, indeed, be separated from polite literature, without degrading the Physician and diminishing his abilities. Yet, how fearful, to be obliged to confess, that, of the learned professions, medicine stands pre-eminently distinguished, as the only one, which offers to a *fictitious reputation*, the advantage of usurping the place of the profoundest acquisitions in science. To elicit the truth of this assertion, I might introduce a few sketches of *prominent men*, from my *port-folio*, but the time is not opportune.

Beauport, August, 1852.

ART. XLIII.—*Contributions to Clinical Surgery*, by ROBERT L. MACDONNELL, M. D., Surgeon to St. Patrick's Hospital. Lecturer on Surgery, St. Lawrence School of Medicine, &c., &c.

Extensive wound of the forearm—secondary hemorrhage, treated by compression of the Brachial Artery, on Bellingham's principle.

THE following case which occurred in my Hospital practice some years

ago, is not totally devoid of interest, and the principle upon which it was treated may not prove useless, nor do I believe the result was different from what might have been attained in many similar accidents, had the same method of treatment been pursued.

If, by the avoidance of an operation, the safety of a patient and the cure of his disease can be equally as well accomplished, as by its performance, it is considered a great improvement in modern surgery, and he who has discovered a plan by which recourse to the knife is avoided, is justly esteemed a more accomplished surgeon, and a more successful cultivator of our science, then he who, however skillfully he may perform an operation, does not, perhaps, do it with more adroitness than hundreds of others; and in most cases, is but a servile follower of some master-mind who first originated the operation. Hence it is, that the modern system of treating aneurisms by compression, has placed the names of its authors in the foremost ranks of surgical pathologists, and as I believe, that the plan may be advantageously employed in many instances, for the arrest of hemorrhage from wounded arteries, I bring forward the following example, as the most striking I have met with, to illustrate this point of practice.

It has been very much the fashion in some quarters, to depreciate any attempts at the simplifying of surgery, and one distinguished practitioner, for whom no one entertains a higher opinion than I do, whilst he himself has shown the most striking instances of this very improvement, inconsiderately, as I believe, has thrown a slur upon the attempts of others, in furtherance of that object. I allude to Professor Syme's depreciation of Dr. Bellingham's discovery—in expressing which, upon one occasion he declared, that such a procedure as the cure of aneurism by compression, should only be adopted by surgeons who *were not capable of practising the higher departments of their art*. In justice to Mr. Syme, it must be stated, that he considers deligation of the femoral artery for the cure of popliteal aneurism, a much more simple procedure than the treatment by compression, an opinion, in which, few surgeons, either on this, or the old continent, will coincide. Even then at the expense of being charged with having missed an excellent opportunity for tying the brachial artery, I have great pleasure in laying the following case before my readers, for I doubt not, many a brother practitioner, called to severe injuries, so common in our rural districts, will be better pleased to learn how to arrest secondary hemorrhage from the upper extremities, by a simple and easily applied apparatus, than if he were given some new landmark for finding the brachial artery itself: so, without further comment, I shall proceed to the detail of the case.

Thomas Foley, aged 28, a ship carpenter, was admitted into the

Montreal General Hospital, September 7, 1897, under my care. It appeared that a few minutes before admission, he had a quarrel with another man, who made an attempt to stab him in the chest with a bowie knife, and in his effort to ward off the stroke of the knife, it entered and completely transixed the left fore-arm, and reached the chest, inflicting in this latter situation, but a trifling incision. The knife was held in dagger fashion, and the stroke was a back headed one, so that in completing the sweep of the weapon, the muscles on the anterior part of the forearm were divided from the radius and ulna, as far as from the head of the ulna, where the knife entered, down to the wrist. Before admission into the hospital, the arm had been bound up by the bystanders with handkerchiefs and other cloths to staunch the bleeding, which had reduced the patient to a state of extreme collapse. The dressings were carefully removed, a tourniquet having been previously applied over the brachial, as a precautionary measure. On examining the wound, the ulnar nerve was found to be *split* in a couple of places but not divided; and a similar injury had been sustained by the ulnar artery, *false-hole* apertures occurring in three places, from which blood spouted out. Ligatures were placed upon the vessel, both above and below these openings, and it was remarked, that though the most superior incisions of the artery were first attended to, and the bleeding from them was effectually stopped, deligation of the vessel at these points did not seem to arrest, to any extent, the bleeding from those at the distal end of the wound. We were obliged to put on a ligature, wherever a bleeding point showed itself. The edges of the wound were brought together, a bandage carried round the arm from the fingers up to the shoulder, and the usual general treatment prescribed, directions being given to have the hand and forearm supported upon a pillow, and a tourniquet to be kept applied over the brachial and to be tightened on the first appearance of bleeding. The *radial* artery did not appear to be divided, and its pulsations were perceptible when examined in the usual situation.

September 18th. Until last night, every thing proceeded favorably, but about eleven o'clock, the house surgeon Dr. H. P. Howard, was called to the patient's bedside; in consequence of a sudden burst of

(as proved by the occurrence of the hemorrhage,) the inoculations being free and numerous, we had little to fear from cutting off a portion of the arterial supply. Accordingly one tourniquet was tightened until a perceptible change was detected in the volume of the radial's pulse, and this was found quite sufficient to control the bleeding from the wound, which was then dressed with lint dipped in turpentine, and the arm was as before bandaged up. The patient was desired to alternate the pressure of the tourniquets, so that when one became painful, the other was tightened and the first one relaxed. The instruments were kept applied for nine days, and he left the hospital fourteen days from that of his admission with the perfect use of his arm. Owing to his dread of bleeding, he allowed the upper tourniquet to remain tightened so long upon one occasion, that slight ulceration ensued.

This patient presented himself before the Clinical Class of St. Patrick's Hospital last winter, and gave the following account of his subsequent state. For some months the arm remained weak, though he was able to follow his employment; he suffered from pain along the course of the ulnar nerve, and from contraction of the ring and little fingers which gradually disappeared, on his keeping them extended upon a small splint. The cicatrix of the wound is now *thirteen* inches long, from which circumstance, the reader may form a correct idea of its original dimensions. He now states, (what he kept a secret, whilst in the hospital,) that on one occasion, becoming tired of the pressure of the tourniquet he relaxed it, but hemorrhage came on in a few hours, and he was obliged to resume the pressure, which he carefully kept up until the wound had nearly healed.

The reader will perceive, that the principle upon which the foregoing case was treated, is precisely the same as guides the surgeon in the employment of compression in aneurisms, *the flow of blood was diminished, but not interrupted, and enough for maintaining the nutrition of the arm* was carried on by the radial and its branches, and by the interosseal, for I rather think, the secondary hemorrhage proceeded from the twig's of this latter vessel. Be that as it may, the result of the treatment shows, that in many cases, secondary hemorrhage may be arrested without cutting down upon the primitive trunk, and though the practice may have been adopted by others, I am not aware that any one has preceded me in the application of the Dublin mode of compression, in cases of secondary hemorrhage, and I cannot but conceive it, as one, perhaps not the least important or valuable, of the applications to which that inestimable principle is capable of being adapted.

Vol. 1. of the Dublin Medical Journal, 1828, p. 100.

ART. XLIV.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University M'Gill College, &c.

(Continued from page 340.)

Here we conclude, for the present, our quotations from the treatise "Cholin," having exhibited in them the principal directions and requirements of the Mishna, concerning that part of slaughtering which has reference to the extraction of the animals blood, and which as we have before seen, has so much to do with the healthiness of the meat. We shall have occasion again to refer to this treatise when examining other matters connected with our main subject. And now in accordance with the plan laid down, * we will endeavor to supply a synopsis of those further rabbinical regulations and directions for the avoidance of blood-eating, and state the penalties resulting from infringement or neglect of this sanatory law. The Yad Hachazakah of Maimonides contains such a synopsis,† and we will now endeavor briefly to scan it.

Maimonides writes, § 1—He who wilfully eats of blood of [the quantity of] an olive, incurs the penalty of excision, [Lev. vii. 26-27] but if through error, he becomes liable to the bringing of an appointed sin offering. The law explains that he becomes not liable but for all blood of beasts [wild and domestic] and of fowl, whether clean or unclean, as it is said, "And ALL blood shall you NOT eat in all your habitations, whether of fowl or of beast (behemah). Wild animals are included here in the term 'behemah,' for we find it elsewhere said, [Deut. xiv. 4-5] These are the beasts (habehemah) which ye may eat, the ox, &c., the hart and the roebuck &c., but to the blood of fish, locusts, insects and the like, the above law applies not; wherefore the blood of fish locusts, &c., which are clean is permitted. * * * But of those which are unclean it is forbidden, because it forms the main substance of their body, and it is with their flesh as with the fat of the unclean beast. § 2. Human blood is prohibited from the authority of the Scribes; an infringement of this prohibition subjects the offender to the flogging of rebellion‡. § 3. The penalty of excision applies only

*Vide page 336.

†Vide vol. 2, Book 5, ch. 6. *Treatise on Forbidden Food.*

‡As emphatically exhibiting the extreme care and scrupulousness to be employed by Jews in refraining from blood-eating, we might have quoted above, the following words of Maimonides in the same paragraph,—"but to eat the blood from the teeth (gums,) is of course not preventible; thus, if he bites into a piece of bread and observes there blood (from the gums) he cuts away that part

to that blood which issues at the time of slaughtering, or drawn while it yet retains its red particles; to that blood which has entered the heart, and to that which results from phlebotomy, and yet issues forth; but that which issues at the beginning of the bleeding, and that which appears when the flow begins to cease, these do not cause the penalty of excision, but are in this respect like the blood of members, since that which flowed through the bleeding, was the vital blood. § 4. The substantial blood and blood of the members, such as of the spleen, kidneys, &c., of eggs, and that found in the heart at the time of slaughtering, as also blood found in the liver, does not create the penalty of excision, and he who eats thereof, even a quantity equal to an olive, incurs according to the divine law the penalty of castigation, for it is said 'ye shall eat no blood.' And with reference to the penalty of excision, the text saith, 'for the life of the flesh is in the blood,' implying that excision is only incurred by eating of that blood with

and afterwards eats." Thus writes Maimonides. Another celebrated Jewish Doctor Menasseh Ben Israel, whilst engaged in the days of Cromwell to secure the return of his people to England, in adverting to the ignorant and fanatic prejudice which had been raised against them for "using human blood to make their Passover cakes," says, (*Vindiciæ Judeorum* sec. 1. See Samuels, "Jerusalem," by Mendelssohn, vol. 1. p. 5.) "And more than this, if they find one drop of blood in an egg, they (the Jews) cast it away as prohibited; and if in eating a piece of bread, it happens to touch any blood drawn from the teeth or gums, it must be pared and cleansed from the said blood, as it evidently appears from *Shulchan Aruch* and our ritual book, &c.

§ We have seen with as much surprise as regret, that an able writer should descend to treat lightly a question which has had for its supporters so many master minds—advocates as pious and amiable as they were learned; of course we can have but little to say to remarks conceived in such a spirit, but this much we would observe. To select the Canadian *habitants* with whose unrestrained addiction to blood-eating we are sufficiently acquainted, as a proof of the non-injuriousness of the practice, we deem singularly unfortunate, though not for our assertion above made with reference to its effects, mentally. We only speak, as we can only speak, be it remembered, of the testimony afforded by nations after the lapse of a long period of time, say of centuries, and thus it will be perceived that we only speak of blood-eating as being an element—how powerful, who shall say when it is so announced and condemned by inspiration—of decay and destruction in a nation. With individual cases the question has nothing to do—we will not, nor did we ever maintain that with reference to these, the practice is a bad one; but to return. The Canadian *habitants* are doubtless, a worthy, happy, contented, and so far as creature comforts, and perhaps business transactions are concerned, an acute people, yet few would charge them with too much intellectuality, enterprise, or with a too free spirit of inquiry either in matters spiritual or secular. Of course with other nations there may be, and indeed are, other causes and agencies, educational especially, to counteract this serious error in diet; just as it has been shown other dietetic substances may counteract the ill effects of eating blood, in the individual system.

which the life went forth. The blood of a foetus found in the uterus of any animal is to be accounted as the blood of one born, therefore the blood found in its heart causes the penalty of excision, but the rest of its blood is to be accounted as the blood of members. In § 6 particular directions are laid down for extracting the blood from the heart, which, being so to speak, the blood-pump of the wondrous mansion in which it resides, requires such particular directions. In § 7 are given directions for extracting the blood from the liver, so that it may escape freely and not be retained by anything. In § 9 we find that if the neck of a beast become broken, before it dies the blood becomes unduly absorbed in the members, and then it is prohibited; if, however, in killing (healthy) animals or fowl, no blood issues, they are lawful for food. The following directions are worthy of note, as being now actually observed by the great body of Jews in every part of the world, even by that comparatively small portion of them who do not generally guide themselves by rabbinical teachings, but who yet observe these we are about to mention, as good, proper, and wholesome practices. How far they are calculated to procure to these observers good, wholesome meat, may be decided by reference to Doctor Duncan above quoted, and to other writers. § 10. Meat cannot be considered as free from blood unless it have been duly salted and expressed after the following manner. The blood must first be drawn from the meat, which is then to be carefully salted, and is to remain in salt for a time (not less) than that consumed in walking a mile, [half an hour to an hour is the time observed by Jewish families] afterwards it is to be drained until the water which runs from it is clear, when it is to be placed in water before using. § 11. The salting process should only be carried on in a perforated vessel [cullender,] so that the blood escape, and then with coarse salt, since fine becomes imbibed in the flesh, but does not extract the blood."

Were it consistent with our limits, and necessary to our subject, we might by further quotations shew even more clearly the scrupulousness of the Hebrews in abstaining from blood. We might describe the diligence and care employed by them in purging from their meat, before eating, all veins and arteries, without which process, the meat would be considered as improper for food, and as so much carrion. But we think it enough to inform the reader of these facts, and to refer him to the books already mentioned for further details. For now we would bring our remarks on the prohibition of blood to a close. These few considerations however, we would urge in conclusion—The Hebrew people for thousands of years, even before those glorious days when their great Moses lived and moved among them,

have been in a most remarkably scrupulous manner observant of this prohibition. They have regarded the eating of blood as an abomination, and as a loathsome practice; as a practice, which, if much indulged in, would cause them to think lightly even of the blood of their fellow-men. And what, to them, have been the results of this *nationally*, and *after so very long a space of time*? for it is only by referring to them as a nation, and to the longest period to which we can look back, that the question ought to refer, and that we ought to judge it. In the remarks we have made upon this sanitary law, as it undoubtedly is of the Hebrews, we have deemed it proper briefly to show that scientific writers of the highest reputation have proved, that the wholesomeness of animal food has much to do with the extraction or non-extraction of the vital stream, and that, as a consequence, our own health is, in no inconsiderable degree, dependant thereupon. Let us now ask, whether their abstinence from blood through ages has at all made the Hebrews physically speaking, a less healthy or favored people than those who do not so abstain, and whether they do not rather present the most powerful and conclusive testimony in support of those writers who contend for the utility and importance of the prohibition—writers whose humble disciple, apart from our peculiar religious convictions, we profess to be. These queries we make without stopping to insist upon their comparative exemption from that class of diseases from which, they ought, as a consequence of their abstinence, to be free, but to which those who unreservedly indulge in such gross indigestible nutriment should be subject; nor do we stop to insist upon the probability of their being less likely to become legitimate objects for the attacks of epidemics, &c., than those who are less careful than they in this regard, and in the general healthiness of their animal food; but we go on to remark, that although our limits as well as our inclination, have caused us to confine the number of our references and authorities, still, we think we have adduced sufficient respectable testimony to show, that blood-eating exercises a decidedly “baneful influence on the disposition” and *minds* of men. Christian writers have uniformly endeavored to show—with what success we need not here inquire, that the rabbinical traditions are but little older than Christianity. Supposing this to be the case, and confining our retrospective view of the mental condition of the Hebrew people to nineteen centuries, let us ask, and let the reader decide in all candor, whether that, by all acknowledged, wondrous activity and elasticity of intellect which has ever characterised them; which has enabled them, under God, to bear up against persecution the most intense, and slaughter the most bloody; to withstand like an impreg-

nable fortress, those destructive causes and events which have swept away nations more numerous, more powerful, and in every way more prosperous than they—have swept them away so that scarcely a vestige remains of them;—let us ask, whether this, and their equally acknowledged exemption from the commission of those fearful deeds of violence and bloodshed, which are but too frequently the result of an artificially-formed brutish organisation and instincts; of a superinduced animalism, which is but too surely the offspring of unrestrained indulgence in matters dietetic; whether these facts prove that the prohibition of blood and other articles of diet has acted injuriously to them, or whether they do not present testimony valuable and conclusive for those advocates of total abstinence from blood-eating who show that the mind, equally with the body, must at least suffer from the practice. We humbly claim for these questions the same indulgent and serious consideration which thinking and good men who are well-wishers of their fellows have very properly extended to that great moral movement—the total abstinence from intoxicating drinks. The perceptive faculties may become clouded, men may “become drunken with blood drinking,” also saith the prophet, and were the ill effects of the latter so immediately perceivable, and its opponents as numerous, and as zealous, as are the advocates of the former movement, then would there doubtless exist in many mens mind the same antipathy of the one usage as for the abuse of the other. But be this as it may, this much appears evident and sure to us with reference to the ideas and sentiments of the people whom the question at present most concerns. We believe it unquestionable that irrespective of the insuperable religious objections they have to blood eating, the conviction is deeply rooted and generally felt among all Israelites, that would they not snap asunder one of the most powerful links in their national union and preservation, but would they maintain the undying vigor of their race—would they exempt their bodies from gross scorbutic humors and affections, and their minds from those passions and tendencies which weaken what is strong, depress what is exalted, degrade what is elevated, and brutalise what is divine,—then they must not lightly esteem, but strictly and religiously observe and respect THE PROHIBITION OF BLOOD.

XLV.—*Reply to Dr. Howard's "Review".* By MEDICUS.

It must be disagreeable, I have no doubt, to one's feelings, to have his publications freely and openly commented on. It is, however, the inevitable penalty which all those must pay who would fain occupy the responsible position of instructor of their fellows.

Dr. Howard opens his "Review" in the stereotyped, but exceedingly puerile plan of procedure, usually adopted in similar cases, *viz*: by impugning the "motives" of his critic. "The above observations," he says, "*professedly written, &c.*, though it may be shown to be highly probable that the author of the "Observations" was influenced by *some other motive* besides." Now, as I am always willing to make due allowance for the little weaknesses, to which, naturally, we are all more or less subject, I can assure Dr. Howard, that I do not harbour the slightest feeling of resentment towards him for this ebullition of feeling—this exhibition of restiveness. It is not more than might reasonably be expected under the circumstances.

In the form of a number of interrogatories, Dr. Howard endeavours to make it apparent, that Medicus was wrong in stating, that "the only portion of the first clause of the diagnosis verified by the subsequent *post mortem*, was "no disease of the aortic valves"; and in support of his position, brings forward a paragraph from his "lecture," and demands "why medicus omitted to notice it?"

I recorded the statement and made the omission advisedly.

A diagnosis, according to the present common acceptation of the term, is an opinion arrived at by a Physician concerning the diseased conditions present in any case, from a careful consideration of the history of the disease and all the phenomena presented by it, and based on the knowledge he already possesses of the body and its derangements. It is absolutely necessary, moreover, that this opinion be formed and expressed during the life of the patient. Any conclusion arrived at, therefore, subsequent to the demise of the patient, from information revealed by *post mortem* examination, manifestly cannot be received as "a diagnosis."

A Practitioner accurately noting a case of disease, in which some doubt existed in his mind regarding the correctness of certain points of his already expressed diagnosis, would certainly, whenever his doubts were cleared up, make a record of the fact in his case-book.

Now, in the commencement of his lecture, Dr. Howard gives the history of "Churchill's" case with the general symptoms and physical signs present on the 17th March. Then follows the "*diagnosis*," regularly italicised, and this again is succeeded by *daily notes* of his

condition up to the time of his death, which occurred on the 27th March. The whole apparently being a careful transcription of the entire case from Dr. H's note-book. Not one word, however, appears in this, *the proper place*, indicative of any change having taken place in his views, expressed on the 17th, relative to the morbid conditions present. But towards the latter end of his lecture, which, be it remembered, was delivered after the death of the patient, he thus addresses the student :—"Four days after the commencement of the treatment, some important changes, *you may remember*, were recorded in the physical signs, which threw additional light on the case, &c. And *now*, you can perceive the value of repeated examinations, &c., &c. In harmony with this view, we find that on the 20th, &c., &c. Dr. Howard may have had his "doubts of the 17th removed on the 21st"; but I would respectfully submit that this passage, which he adduces in proof, cannot be accepted as evidence. For were *post mortem* explanations of, and reasoning on, the changes in symptoms, allowed and received, when no evidence exists that the importance of such changes was recognised, noted, and commented on, during the life of the patient, we would rapidly arrive at perfection in diagnosis. Autopsies would soon take precedence of careful and unwearied investigation, and many would trust much to their revelations for clearing up their doubts and correcting their errors.

The two following questions immediately succeed in our review, the passage from his lecture. "Is not the existence of mitral obstruction and softening excluded here? And does not the history of the cadaveric examination confirm this opinion?"

The importance of the "exclusion" is completely invalidated by the fact, that there is no proof of its having been made until after the death of the patient.

What species of "confirmation," I would ask Dr. Howard, does his opinion, which was some days after the autopsy, receive from the "history of the cadaveric examination," which examination was made "four hours post mortem?"

"Again," asks Dr. Howard, "what induces the writer of the Observations," towards their close, to drag forward the *fact*, that "there was an adherent pericardium which was not diagnosed. * * *

Does he mean that the condition in question ought to have been diagnosed under the circumstance of the case?" My inducement in dragging it forward was, simply to place it with other *facts*, tending to show, that the "cadaveric examination" did not "confirm the diagnosis very closely," and that "the amount of positive and accurate information that may be obtained by the application of our present knowledge

of cardiac diagnosis, [even] when assisted and corrected by successive examinations," is sometimes not very "large." That I did not "mean that the condition in question ought to have been diagnosed," is quite evident from what I have already said in my "observations," and which, having apparently escaped the attention of Dr. Howard, I will here transcribe for his benefit. "It has not been my object, in these few remarks to find fault with Dr. Howard for not making a perfect diagnosis. I am too conscious of our present imperfect knowledge of the various morbid conditions of the heart, and their declaratory signs and symptoms, to expect anything of the kind."

Dr. Howard next "refers" me to some "eminent writers on cardiac disease," as his authorities for the employment of the terms "weak heart," "weakness of the heart," &c. It is quite true that, scattered through the works of some modern authors, such vague and indefinite terms as "weak heart," "disturbed heart," "well-nourished heart," &c., are to be found; but they are there employed in a sense widely differing from that in which Dr. Howard employs the term "weakness of the heart" in his lecture. With Walshe, Latham, and others, "weakness of the heart" is expressive of *a condition of the sounds and impulses*, obtaining in various pathological states of the organ: whereas, Dr. Howard introduces it into his "diagnosis," and uses it throughout his lecture, as if it indicated some *definite pathological condition of the heart*; one having peculiar symptoms, and quite cognisable to the observer. It was this that I objected to, and not to the "employment of the term."

While at this part of the answer, I would stop to point out the importance of a passage which occurs in Dr. Howard's lecture, and which places him, in a knowledge of the Semeiology of Cardiac affections, quite in advance of Walshe, the latest writer on heart disease. "A largely dilated heart," says Dr. Howard, "would be equally compatible with *such signs and symptoms*, on the supposition that its walls were weak, or that they were gorged with blood from the obstruction to

"Passive and mechanical anes," says Dr. Walshe, list, are without clinical e; there are, in fact, no l.)

f the heart" is treated of stinct terms, and is never late, treated of, under the Howard as "erroneous," rect me. Why does Dr.

Howard play upon words? A fatty heart, particularly that form designated "fatty infiltration," in which oil-globules are found within the sarcolemma, is undoubtedly a soft heart, and in this way may be said to cause softening of the walls of the organ. This softening, however, is not "*the pathological state treated of by writers under the name of softening.*" The remarks of Dr. Blakiston, which Dr. Howard refers to, occur among some general observations which he makes "on the principal alterations of the muscular walls of the heart which affected its contractile power" in 155 cases which he noted of diseased heart, and merely amounts to this, that in many instances of softened and flabby walls, fatty degeneration was found.

"The reason why," says our reviewer, "I omitted to notice" "violent and continued vomiting" as a sign of "polypus of the heart of great diagnostic value" is, that I do not regard it in that light. The only modern authority presented to my recollection, who mentions "nausea and vomiting" among the symptoms of polypus is Hope." The only logical inference deducible from the first part of the above quotation is, that the writer was quite familiar with the fact, that "vomiting" had been recorded as a symptom of polypus; but that, as the result of experience, he did not "regard it" as a sign worth mentioning. The value of Dr. Howard's opinion on the matter, might have been correctly estimated, if he had given the number of cases of polypus which has fallen under his observation, with the number in which vomiting was present, as well as the number in which that symptom was absent. As it stands at present, it is a mere gratuitous assertion without the least title to consideration. I mentioned "vomiting" as an important symptom, from having seen two cases of polypi in the Montreal General Hospital, in which it was certainly one of the prominent symptoms present,* and from a knowledge, that different writers on Cardiac disease, had admitted it among the symptoms of polypus of the Heart. As Dr. Howard, however, knows of no author "who mentions nausea and vomiting among the symptoms of polypus of the heart," except Hope, I shall endeavour to supply this deficiency in his knowledge by giving him a few extracts, bearing on the question, from standard authors. Among the most important symptoms of sanguineous concretions recorded by M. Grisolle, are, "*Les battements de l'organe sont tumultueux, irréguliers, précipités, et la matité de la région précordiale est plus étendue; en même temps, il existe de l'angisse, une dyspnée considérable, et même, de l'orthopnée, ainsi que des nausées et des vomissements.*"

* NOTE.—Those two cases were under Dr. MacDonnell's care; and one, to my certain knowledge, was diagnosed before death.

† *Traite de pathologie*. Vol. 2, p. 353.

Prof. Dunglison mentions, "cold surface and extremities, and a livid countenance, occasionally accompanied by nausea and vomiting."*

M. Aran says, that with "sudden and great increase of dyspnoea, &c., &c., there is livid colour of the face; nausea and continued vomitings, and in some cases, stupor and feeble convulsive movements."†

Dr. Copland, to the enumeration of other symptoms, adds, "and occasionally vomiting, also indicates the formation of concretions."‡

M. Fabre, gives the following with others, "Le froid glacial des extrémités et de tout le corps, la lividité de la face, les nausées les vomissements, etc."§

And lastly, Dr. Joy says that the formation of Cardiac polypi, is marked by coldness of the skin, and sense of sickness.||

I am next accused of uncharitableness, "Medicus attempts to show that the second part of the diagnosis" was incorrect. But had he reflected (not to say read) more, he might have arrived at a more charitable explanation of how "dilatation" of the heart could exist, although at the opening of the body, the organ was found closed by rigor mortis; than that I "felt myself bound by my convictions to assert its presence." When the heart was examined after having been kept a few days in spirits, the dilatation was manifest, and when writing out an accurate statement of its condition, that fact, as well as its weight and dimensions was recorded, with the appearances previously noted at the autopsy." "Had he reflected, (not to say read) more." Surely the reviewer must have been in a very facetious mood, when he penned this line. The solution of a question naturally arising out of it, would, methinks, puzzle even "a learned college" to determine. What amount of reflection—what extent of reading is required, to discover that appearances observed "a few days" after death are included with those placed under the heading of "appearances discovered in the body four hours post mortem?"

Dr. Howard's explanation of the contradiction which I noticed in my "observations" is unfortunate, as many, who are not acquainted with his undoubted abilities, may be led by it to suppose that he thinks it a matter of small moment how clinical observations should be recorded. "*In vidit in Scyllam qui vult vitare Charybdim.*"

* Practice of Medicine. Vol. 2, p. 539.

† Practical Manual of Diseases of the Heart and great vessels. Amer. Ed. p. 294.

‡ Medical Dictionary. Art. Heart.

§ Dictionnaire des Dictionnaires de médecine. p. 633.

|| Library of Medicine. Vol. 3, p. 374.

Notwithstanding the remark, that the "dilatation was manifest," I must still assert that "it admits of serious doubt. For, in addition to what I have already remarked, Dr. Howard's "accurate" measurements go to prove that there could not have been any dilatation. According to Bouilland, the heart in its transverse diameter, at its base, measures on an average $3\frac{1}{2}$ inches. Deduct from that 9 lines, being the sum of the thickness of the walls of the left and right ventricles at their bases, and there remains 2 in 9 lines, for the septum and cavities. Now, it is clear, that dilatation of the ventricles, in separating the walls of the heart at its base, will increase the diameters of the heart, on the supposition that the walls retain their natural thickness. If to dilatation, however, be added hypertrophy, then the diameters attain their maximum.—"Churchill's" heart measured "4 inches in transverse diameter"; thus leaving only 6 lines to be made up by the hypertrophy and dilatation. The walls of the left ventricle, at its base, measured "14 lines" in thickness; those of the right ventricle "8 lines," making a sum of 22 lines. The hypertrophy of the walls alone, therefore, accounts for 1 inch-4 lines, over and above the difference which existed between the transverse measurement of Churchill's and the average natural sized heart. If the transverse diameter had been 5 in 4 lines, it could have been accounted for, without having recourse to the supposition of dilated cavities. As "the right auriculo-ventricular orifice, measured 5 inches in circumference, there is no doubt, but that it was dilated.—But it would appear from what he says in his lecture, that the valves had likewise increased in extent, and were quite capable of performing their functions. The cases mentioned by Blakiston in the note to "Table, 11" are in this respect similar. "In fifteen of these cases, there was also dilatation of the tricuspid orifice, but in twelve of them the valves were so large that they closed the orifice and prevented regurgitation."

The question of Cardiac Dropsy, and its causes, has been a vexed one. Dr. Blakiston, from the observation of 91 cases, in which dropsy, tricuspid regurgitation and dilatation of the right cavities of the heart coexisted, arrived at the conclusion, that "dilatation is the main cause of general obstruction, because it is accompanied by incompleteness of the tricuspid valve, in consequence of which, a powerful back current is forced against the blood, returning from the veins of the general circulation."

It was this conclusion, I now believe, Dr. Howard alluded to in his lecture when he said, "as established by Dr. Blakiston," and corroborated by myself," and not to "enlarged jugular veins as a sign of a dila-

*1 *Blakiston on the Disease of the Chest, Amer. Ed.* p. 218.

ted right cavity.” Dr. Howard’s “corroboration,” of the opinion Dr. Blakiston* came to after the careful examination of *one hundred and fifty-five* cases of heart disease, is to be found in *one* case published by him in the “*British American Medical and Physical Journal*,” for May and June, 1850.

Having now answered Dr. Howard’s “Review” as fully as my time permitted ; and having given my reasons for differing from him, in extension, I purpose allowing the matter to drop here, unless something appears from him on the subject, which I may think calls for a reply.

Montreal, 20th September, 1852.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Observations on a case of complicated Hare-lip, and the method of treating it. BY RICHARD QUAIN, ESQ., F.R.S.

As there were in this case some novel circumstances both in the nature of the malformation and the manner of remedying it, I think it may be worth being recorded.

The child was a female, two years and a half old, large of its age, and not unhealthy looking. The deformity was an example of double hare lip, (according to the incorrect designation in common use,) and of the worst kind. In addition to the ordinary malformation in such cases, the central piece of the lip was out of the line of the lateral pieces. It hung from the septum, near the point of the nose. When the case was shown to me, that fragment of the lip was unsupported behind, but not been originally so. The bone which supported it had been in part removed ; of this the remaining bone bore evidence in its roughness, and it wore at the time an unhealthy aspect. This outline of the case gives us not only the most extensive form of hare-lip, but likewise a complication calculated to add materially to the difficulty of the treatment. For while, in the ordinary states of the deformity, whether there be one fissure or two, the several parts serve for the construction of the lip, and they are brought into connexion over a comparatively short space,—in the case before us, the central piece was so placed, that if it were united in the usual way with the lateral pieces, these being drawn forward to its level, the upper lip would be brought into unsightly con-

nexion with the point of the nose, and the nostrils would probably be in a measure obstructed. Again, it was evident (and it was proved in the operation) that the central part of the lip, when carried back to the level of the lateral pieces, would not have had sufficient length to join with these in their natural position. In short, it was necessary to construct the lip from the lateral pieces only; and these, therefore, instead of being drawn inwards to the middle of the corresponding nostril, as in other cases, must have been brought to unite together beneath the septum nasi. If, now, the central tubercle be put out of consideration, and the edges be supposed to be removed from the lateral pieces sufficiently for the purposes of the operation, it will be plain, that the remaining fragments of the lip was very narrow, at the same time that the void they were eventually to cover, and the space over which they must have been drawn so as to be brought into contact, were proportionably very considerable—and it will be equally plain, that something more than the ordinary method of performing the operation was necessary in such circumstances.

It was necessary, first of all, to detach the lip at each side freely from the maxillary bone,—much more freely than is ever required in ordinary cases. This process, in itself, would have probably enabled me to draw the two pieces of the lip together towards the lower, the unattached edge. Not so, however, the upper part: in order to make this sufficiently free, its connexions must have been further separated. For accomplishing this purpose, two plans occurred to me. One of these was, to carry an incision, on each side, straight outwards, on a level with the lower edge of the nose, for half an inch, or thereabouts. The other plan consisted in making short curved incisions upwards, along the outer borders of the alæ nasi, (one on each side,) and in removing, at the same time, a narrow slip, in the course of each incision, in order to leave sufficient room for the lodgment of the ala when the lip should be moved inwards. Either of these plans would, in my judgment, have allowed of the junction of the parts without undue stretching; but I preferred the latter, believing that the marks of the incisions would probably be the less perceptible, and especially that this plan would allow of the nose being made more symmetrical. It may be added here, that, in the operation, having found that the nares were but little disarranged when the sides of the lip were brought together, after one incision had been made on each side, I did not form grooves for the outer borders of the alæ as I had proposed. This part of the plan, however, remained in reserve, if afterwards it should seem to be necessary to resort to it.

The thick fleshy tubercle ~~detaching from the lip, and the~~ ^{detaching from the lip, and the} ~~lip~~ ^{lip} was disposed of in the following manner, ~~and the~~ ^{and the} ~~lip~~ ^{lip} back

part, it was turned back to the under surface of the septum. Its point then reached the seam between the side pieces of the lip, but did not pass down between them. The cicatrix of the lip was, therefore, a single straight line, not Y-shaped, as is customary in cases of the so-called double hare-lip.

It is unnecessary for me to enter into the details of the operation, as, in all respects but those already alluded to, it was conducted in the ordinary way.

In managing this case, I derived essential assistance from the supporting spring which has lately come into use. This encircles the head from behind, and the two ends, furnished each with a pad, rest upon the cheeks, which are thereby supported in the position given to them. All dragging or stress upon the sutures is thus prevented; and pressure upon the lip, whether from the bones behind or otherwise, is guarded against.

This object is so important in such cases as that now under consideration, that a few more words respecting it will not be out of place.

Very many years have gone by since the need of support to the cheeks in aid of the suture in treating certain cases of hare-lip was perceived by surgeons, and attempts were made to effect the object. The bandage variously disposed was generally resorted to; but other expedients were likewise used. Several of these are noticed in the "Mémoires of the Academy of Surgery" of France; and in one of the essays in that most valuable publication it will be found, that an able surgeon, Louis, went so far as to put aside the pin as the means of union in hare-lip, substituting for it a systematically arranged, and not a little complicated, "uniting bandage," with, however, a single point of thread suture. This system fell rapidly into disuse, but the bandage was still continued in aid of the twisted suture, especially by continental surgeons. The bandage was made to encircle the head and face, crossing from the occiput alternately upon the lip and forehead, and supporting compresses upon the cheeks. It is well represented *in situ* in Desault's Journal. In one case Dupuytren included the nose likewise in a slit of the band. (Leçons Orales, T. IV., p. 102.) But the bandage is liable to the serious objection, that pressure is made thereby upon the lip, and that discomfort is occasioned by interference with the nose and the mouth. These objections do not apply to the spring; and I may observe, that the advantage of such a means of supporting the parts did not escape our predecessors. More than a century ago (1721) an apparatus of that kind was recommended by a practical surgeon. (See Verdus *Traité des Opérations de Chirurgie*," p. 218.) The suggestion in this treatise is to place the spring above the head, with the ends

resting upon the cheeks. The use of this instrument was, however, objected to by several of the leading surgeons of the last century, and it fell at once into disrepute, although the objections appear to have been merely theoretical. (See among others, De la Faye, "Mém. de l'Acad. de Chirurgie," Tome I., and Le Dran, "The Operations of Surgery," Gataker's Translation, p. 345.) Yet the thing itself seems obvious enough. Heretofore, I myself, before I had seen Verduc's proposition, applied to more than one surgeons' instrument maker to construct a spring, with a view to another difficult case; but they did not succeed in making a useful instrument. The original of the spring used in the present case was constructed for his own child a few years ago by an artisan whom you have seen from time to time in the hospital. He had, be it observed, the object to be attained constantly before him, as well as the model for trying the effect of the apparatus; and he succeeded remarkably well, without too, I believe, any suggestion save from his own observation and sagacity. The spring constructed by this ingenious person is useful in most cases, and is of great value wherever the deformity is extensive or complicated.

But to return to our case: its progress was in every way most satisfactory. Direct union took place over every part except at one point at the upper end of the main cicatrix of the lip, close to the septum nasi; and here the granulations (which were little more than the extent of a pin's head) were skinned over in a couple of days.

At first, the lower lip seemed loose, as if too long. This appearance was observed, even when the spring was first applied, two or three days before the operation,—during which time it was kept on in order to accustom the child to its pressure, and to regulate this. In about a week, the appearance adverted to ceased; and now, on close examination, it is observable only that the upper lip is not as loose over the gum as it is in the natural conformation of the parts. It is not in any degree notched; and the improvement effected in the child's appearance is very striking.

PATHOLOGY AND PRACTICE OF MEDICINE.

An inquiry into the proximate cause of Gout and its rational Treatment. BY ANTHONY WHYTE, Esq., M.B., Cambridge, late President of the Royal College of Surgeons of England.

I have for sometime been engaged in preparing a work on Diet, wherein I purpose, among other things, to trace out the connection between sundry constitutional disorders, and the habitual abuses of the digestive organs in childhood as well as in the adult age. I had intended

to embody in that work certain theoretical and practical views, which long experience and reflection have led me to entertain on the subject of gout ; but having been strongly solicited by several professional friends not to delay the publication of that portion of my notes, I have here thrown them into the shape of a separate paper.

In venturing to propound a new theory of gout, I do not conceal from myself the hazards I incur. The very announcement of my design must, I am aware, provoke against it a formidable array of prejudice, since it is natural to predict the failure of every fresh adventurer in an enterprise so often and so strenuously essayed, and always essayed in vain. On the other hand, I submit that there is a wide distinction between what is merely improvable and what is impossible, and that, however difficult be the problem I profess to solve, at least, it involves no absolute impracticability. It is safe to reject, *à priori*, the claims of one who shall pretend to have discovered the perpetual motion, or the elixir vitæ, or to have unravelled the impenetrable mysteries of ontology ; but an inquiry into the natural history of any given disease belongs to quite another category ; nor does there exist any reason why science should ever halt in despair at any unaccomplished point in her proper business, which is in every instance to trace back step by step those trains of phenomena to which, as we regard them in their unvaried order of sequence, we attribute the relationship of cause and effect. In some cases, this kind of research has been prosecuted almost to its last limits, whilst in others it has stopped short at an early stage, and there remained for centuries, in spite of countless efforts to discover the missing clue to the next step. But soon or late the clue will be found, and the further step achieved ; for no amount of lost labor can exhaust the persevering energies of science—no lapse of time can subject her powers to bar or proscription. How often—to use the language of Sir John Herschel—how often have “ we seen obscurities, which seemed impenetrable, in physical and mathematical science, suddenly dispelled, and the most barren and unpromising fields of inquiry converted, as if by inspiration, into rich and inexhaustible springs of knowledge and power, on a simple change of our point of view, or by merely bringing to bear on them some principle that it had never occurred before to try ?”

I believe that, without arrogating to myself any inordinate share of acumen, I may affirm that, through one of those happy accidents adverted to in the foregoing extract, I have been prompted to the true answer to that hitherto unsolved question—What is the proximate cause of gout ?

In addition to the ordinary opportunities of a long professional life, my means of becoming intimately acquainted with this disease have

been in part of a peculiar nature, such as falls in an equal degree to the lot of few medical practitioners, and such, I may boldly assert, as no man will be inclined to envy me. Corvisart's classical treatise on diseases of the heart was the work of a man who was himself afflicted with one of those organic maladies he so ably described. The symptoms of ulceration of the stomach were vividly portrayed by Béchard, from his own sad personal experience. The connection between organic disease of the brain, and certain disorders of the sensorial functions was illustrated, as it could never otherwise have been, by Dr. Wollaston's description of his own case, which he studied with the same serene sagacity and precision as characterized every other exertion of his noble intellect. I, too, however unfitted to compare in other respects with those illustrious men, have this, at least, in common with them, that I have learned from my own sufferings some facts likely, as I trust, to prove of considerable importance to medical science.

I am the offspring of parents both of whom were constantly the subject of gout—a disease which was inherited by their four sons. Two of the latter (twins) died at the respective ages of 45 and 46, worn out by reiterated attacks of the malady. For myself, sharing largely in the family predisposition, I very early in life began to exhibit signs of latent gout, shown in the ready conversion of common nutriment into acrid acidity; and among my earliest recollections are my mother's repeated administrations to me of magnesia and alkaline preparations, to remedy the heartburn, with which I was constantly tormented. About the age of sixteen, a fixed aching pain occupied the middle flexor tendon of my right hand near the root of the finger, preventing its flexure. In the course of a week or two, the pain in the finger ceased suddenly, and was almost immediately succeeded by a severe attack of gout in the large joint of the great toe, ushered in by all the usual precursory symptoms. The subsequent visitations of the disease have extended over a period of forty years, during which it has affected every tissue of my body. Hence, I have had abundant opportunity not only to experiment upon the gout in my own person as regard dietetics and therapeutics, but also to study its natural history under the least ambiguous conditions, whenever, as not unfrequently happened, I allowed a paroxysm to run its course, and effect its own cure. It was chiefly by noticing what took place under such circumstances that I was led to entertain those views which I shall presently lay before my reader.

But first, for the sake of clearness, it will be well to define the actual state of our knowledge as to the intimate nature of gout; and this, I think, cannot be better expressed than in the following propositions

wherein Dr. Holland has comprised all that is ascertained, or to be strongly presumed, on the subject :

1. “ That there is some part of bodily organization disposing to gout, because it is an hereditary disease.

2. “ That there is a *materies morbi*, whatever its nature, capable of accumulation in the system, of change of place within the body, and of removal from it.

3. “ That though identity be not hitherto proved, there is a presumable relation between the lithic acid, or its compounds, and the matter of gout ; and a connection through this with other forms of the calculous diathesis.

4. “ That the accumulation of this matter of the disease may be presumed to be in the blood ; and its retrocession or change of place, when occurring, to be effected through the same medium.

5. “ That an attack of gout, so called, consists in, or tends to produce the removal of this matter from the circulation, either by deposition in the parts affected by the excretions, or in some other less obvious way, through the train of actions forming the paroxysm of the disorder.

6. “ That there is an intimate relation between the condition of gouty habit and the functions of the kidneys and liver, both in health and disease.

7. “ And that the same state of habit or predisposition which in some persons produces the outward attack of gout, does in others, and particularly in females, testify itself solely by disorder of internal parts, and especially of the digestive organs.”

The opinion that hereditary predisposition to gout consists solely in a peculiar character of the ligamentous and other associated textures, is surely untenable, although it has been advocated by some authors of eminence. The disease, however prone to affect the joints chiefly, is incident likewise to all the other fibrous textures of the body without exception. The constitutional disturbance that precedes its attacks, the many functional aberrations of the assimilating, secretory, and excretory organs by which it is accompanied,—its erratic character, and the rapidity of its transitions from one part to another,—are facts tending most strongly to the conclusion that the immediate cause of the malady is not local, but general, and that the vehicle of its diffusion over the whole system can be nothing else than the circulating fluids.

Furthermore, did we suppose that hereditary transmission of gout is identified with a peculiar condition of those solids which are the most frequent seat of gouty inflammation, its active development would then have to be accounted for in one or other of the two following ways :— Either the transmitted peculiarity in question is an actual *materies*

morbi deposited in the vitiated textures, or it is such a structural peculiarity of the latter as renders them especially liable to the noxious influence of a morbid principle produced in the body by other causes. Either hypothesis leads to the conclusion that gout is a blood disease. The second of the two does this directly and immediately, for it assumes the independent existence of an exciting cause, to be brought in contact with the morbidly predisposed parts through the medium of the circulation; whilst, on the other hypothesis, it is evident that the transmitted *materis morbi* must be taken up into the blood, contaminating its mass, and producing in it effects analogous to those caused by other animal poisons imbibed from without.

But there is another class of solids, namely, those concerned in the functions of organic life, which have paramount claims to attention in every inquiry like the present. It is evident that any inherent vice in one or other of the great chylopoietic viscera, must of necessity induce a proportional depravity in the circulating fluids. Reasoning, then, *à priori*, there is nothing unwarrantable in the conjecture that the real *fons malorum* transmitted by the gouty to their offspring, is an unwholesome blood-making apparatus. Such a conjecture, I repeat, is by no means improbable, and my own observations and reflections are all in favor of its positive truth.

On the whole, then, we may safely admit that hereditary gout is a disposition to generate a certain morbid matter within the body, whether that disposition be the effect of some abnormal organic condition, promoting its formation or impeding its due excretion, or of some transmitted impurity of blood which tends, as usual in such cases, to reproduce and continue itself by vitiating the nutritive functions.

The same disposition, but created by other causes, must obviously exist in those cases in which gout occurs as an idiopathic disease. Its individual or ancestral origin is a circumstance which may influence the intensity of its development and its pertinacity in the system, but in no way affects its intrinsic nature. Whether hereditary or not, it presents the same general characteristics, and is of course attributable to the same material agent.

Setting out, then, from this cardinal principle of a *materies morbi* circulating with the blood, we have next to investigate its nature and its origin. And here we are struck, on the very threshold of the inquiry, by the close affinity between the gouty and the lithic acid diathesis—an affinity so remarkable that a very general disposition prevails among medical writers to consider lithic acid as the true gouty poison, and to impute its presence in the system to the impaired action of the kidneys.

As to this latter notion, the arguments adduced in support of it

appear to me to be based on a singular misapprehension of patent facts. The discharge of lithic acid and its salts in the urine is a salutary process ; and while the kidneys are actively performing such a process, it is strange indeed to charge them with creating the offensive matter they only serve to remove. It is not from the presence of lithic acid sediments in the urine of the gouty, but from their absence, that we should be warranted in ascribing to defective action of the kidneys the accumulation of that excrementitious matter in the system. If the blood was manifestly surcharged with lithic salts or their equivalents, while none such escaped in the urine, then, indeed, we should have reached the end of our inquiry in full assurance that the kidneys were the very matrices of gout. But it is not so in reality ; and the most we can venture to assert is, that the renal functions, in common with others, are secondarily affected by the cause, whatever it be of the gouty diathesis.

I think it the more necessary to insist on this point, as it is one on which so acute and lucid a reasoner as Dr. Holland, appears to have fallen into error. "The kidneys," he says, "are evidently the organs of the body upon the disordered or deficient action of which depend those changes in the circulating fluids which have the closest relation to all the phenomena of gout." He would, I think, have been nearer the truth if he had said that the kidneys are, of all organs, those whose secretions afford the most faithful and the most readily discernable evidence of the changes aforesaid.

However intimate the connection between the gouty and the lithic acid diathesis, evidence is yet wanting to establish their actual identity. If the *materies morbi* we are in search of was nothing else than lithic acid, we should naturally expect to find every considerable development of that product followed by a gouty paroxysm. But this is notoriously not the case. It is no uncommon thing to find the urine constantly loaded, during a long period, with lithic acid sediments, without the occurrence of a single gouty symptom. While, on the other hand, it is known that the gouty paroxysm sometimes occurs without the excess of lithic acid in urine. Instances of this kind, occurring in æsthenic forms of the disease, have been mentioned by Dr. Todd in the Croonian Lectures for the year 1843 :—"I have remarked," he says, "a peculiarity belonging to most of the cases of this kind that I have met with, namely, that the urine does not exhibit the abundant precipitate of lithates which so often accompanies the gouty paroxysm. In some instances there was no precipitate at all ; and in others it was very slight. And the specific gravity of the urine was rather below than above the ordinary standard, indicating that no excessive quantity of either urea or lithic acid was held in solution."

The gouty poison, then, is not identical with lithic acid, but is so near akin to it that the chemical and pathological characteristics of the latter may probably yet serve as indices to guide us to the discovery of the former.

“Organic chemistry,” says Dr. Holland, “has taught us how readily the elements out of which all animal matter is formed are displaced from one combination and enters into others ; and how very slight, frequently, are the differences, indicated by analysis, between substances eminently noxious to the system, and those indifferent or beneficial to it. We owe, further, to recent experiments the explicit proof of what simple observation had partly shown before—the remarkable effect upon the whole mass of the blood of minute quantities of certain matters brought into the circulation—leading to the inference of analogous effects from an increased proportion of one or other of the principles accumulating or being unduly retained in the body. . . . These circumstances, now familiar to us, do certainly not identify the material cause of gout with any of the animal excretions just named [lithic acid, urea, the lithic or purpuric salts, &c.] ; but they tend to concentrate our views towards them, and give a much more specific direction to future research. The assured connection of the gouty with the calculous diathesis,—the chemical nature of the concretions and deposits in the former,—and the evidence that these deposits often become in part a substitute for the more active forms of the disease—all concur in further sanctioning the same general view. If we cannot affirm that urea, the lithic acid, or other animal compounds circulating in the blood, give cause to the phenomena of gout, under the most cautious reasoning, we are at least entitled to assume, with some confidence, that these matters secreted from the kidneys *are the equivalents to gouty matter present in the system*,—that they have a certain proportion of quantity to each other,—and that upon their balance depend all the essential characters of the disease,—its modifications being determined by various causes ; some of them topical, some belonging to general functions implicated in the effects of this common cause.”

I particularly invite the reader's attention to the words above printed in italics. They imply that the morbid developments of lithic acid and its salts may be due to the presence of some principle altogether unlike them in sensible properties and chemical composition.

And now we may proceed to deal with the special object of this paper, which aims at determining the primary seat and the essential nature of the disease in question. To this end I shall succinctly narrate the course of induction whereby I arrived at those views which I desire to recommend to the candid examination of my professional brethren.

Having endured innumerable visitations of gout, and having had recourse to a variety of medicaments, some of which were fearfully destructive to my general health, I at last set about watching attentively the method which nature herself adopts for the cure of this disease. Thus it frequently happened, during my forty years' conflict with my hereditary malady, that I submitted to the old plan of patience and flannel, leaving the disorder to run its course and wear itself out by its own violence. On several of these occasions I was attacked with sickness and vomiting, accompanied by acrid bilious discharges from the bowels ; and these evacuations were followed by immediate relief as to every local and constitutional symptom. Sometimes the result was an entire cessation of the paroxysm ; at other times the alleviation was more partial ; but repeated experience convinced me that the degree of relief obtained was always proportionate to the copiousness of the bilious evacuations. Pursuing this hint given me by nature, when the spontaneous diarrhoea has been too scanty I have assisted it with five grains of calomel. These in a few hours produced copious bilious discharges ; the gout departed, and I was well again.

The conclusion forced upon my mind by these facts, recurring again and again during a period of so many years, is, that not to the stomach or the kidneys, or to the impaired functions of any other viscus than the liver, is the cause of gout ascribable.

In corroboration of this view I may appeal to the character of all those medicaments which at various times have been held in estimation as specifics against gout. One property is common to them all—namely, that of strongly stimulating the hepatic functions. The *eau médicinale*, which was introduced into this country about twenty years from France, was a remedy of this class. It was sold in one-drachm bottles (this was the dose), and its effects were certainly very remarkable—frequently removing the most painful attacks of gout in one night. The composition of this potent nostrum long remained a secret ; it was conjectured to contain white hellebore ; and I recollect the physicians of the Westminster Hospital prescribing a vinous infusion of the latter, in one-drachm doses, with great success, as a substitute for the *eau médicinale*. The revived use of *cholchicum* or meadow saffron, which I believe to be the essential ingredient in the *eau médicinale*, has put us into possession of an invaluable antidote to gout ; but how does this *cholchicum* act beneficially ? Assuredly not on the stomach, which it nauseates ; assuredly not on the heart or circulation, which it distresses ; but it acts on the secretions of the liver ; and long personal experience has taught me that until the functions of that organ are called into vigorous play, the *cholchicum* is worse than useless.

Latterly it has been my practice to use cholchicum in combination with other medicines. When I was in the habit of taking it singly, my dose was generally about sixty drops of the wine of the seeds, repeated every six hours. After three or four such doses the bowels were acted on ; the evacuations had the odor of cholchicum ; deeply tinted scalding bile was passed, and I was well, for I needed no more.

Now, if a spontaneous evacuation of bile operates critically to the relief of the gouty paroxysm ; if five grains of calomel produce relief ; if just so much cholchicum or other medicine produces relief as is sufficient to cause a copious discharge of bile, then is it demonstrated that the diminished or altered state of the hepatic secretion, which is always a concomitant of gout, is not to be classed among the secondary phenomena of that disease, as pathologists have hitherto invariably supposed.

Let A and B be any two phenomena whatever ; and suppose that B is never found except in company with A ; then will there be reason for concluding either that one of the two is the cause of the other, A of B, or B of A, or else that both are parallel effects of some third principle. But suppose it be found that, whereas B never presents itself unaccompanied by A, yet A may exist without B, and that, when both are present, the removal of the former is invariably followed by the disappearance of the latter, then it will be manifest that A is the cause of B.

The correctness of this abstract reasoning will, I presume, be admitted without question. To apply it to the subject of our present inquiry we have only to substitute for A and B, the phrases "impaired functions of the liver," and "paroxysm of gout."

No writer that I am aware of has ever propounded, or even surmised, the doctrine that the proximate cause of gout is a functional disorder of the liver ; and I cannot overcome the astonishment that possesses me when I think that it should have been reserved for me to make such a discovery. The principle, when once divulged, appears so plain and obvious, that it is wonderful it should have been overlooked so long. Such has been the feeling expressed by several of my professional brethren to whom I have communicated my views. Seldom have my conclusions failed in such instances to receive a prompt and full assent, and to elicit from each of my hearers the exclamation, "How is it possible I never thought of that before." But the history of science is full of examples, showing how inquirers have for ages been shut out by the filmiest barriers from the acquisition of precious truths.

The derangement of the liver which always accompanies the gouty

paroxysm, and manifests itself by unequivocal signs, such, for instance, as the pale color of the fæces, is too obvious to have escaped notice. Accordingly, writers on the disease have constantly adverted, more or less prominently, to this pathological fact ; but they have all failed to assign to it the position it really occupies in the train of symptoms. The tendency of their speculations has generally been to consider the disorder of the liver as consequent upon that of the stomach, whereas the converse doctrine is far more consonant with observation and with physiological principles. Acidity in the stomach is an unfailing element in the gouty diathesis. Now such a condition of that organ may, undoubtedly, react on the liver, and impede or vitiate its secretions. On the other hand, we know that a very important office performed by bile, is the neutralization of the free acid, which is always developed in the stomach during healthy digestion, and is, therefore, a constant ingredient in chyme ; only assuming a morbid character when it is excessive or otherwise abnormal. Hence, given two coexisting facts—acidity of stomach, and deficiency or faulty composition of bile—it will be natural to surmise that the former is the effect of the latter, and nothing less than specific proof could justify our adoption of the opposite conclusion.

It is a fact of great importance to the decision of this question, that, however the administration of antacid medicines may alleviate the heartburn and the other distressing effects of acidity in the primæ viæ, such remedies never rise above the rank of palliatives in the treatment of gout. They have not the least efficacy in restoring the healthy action of the liver ; whilst, on the other hand, whatever accomplished that object never fails to remove every other dyspeptic symptom likewise.

The liver, then, is the *officina* in which is elaborated the *materies morbi*, on which the whole train of gouty symptoms are dependent. What may be the precise nature of that poison I do not pretend to determine. That remains an interesting subject for future inquiry, to which I may venture to hope that I have given a fresh impulse and an increased prospect of success, by defining its proper point of departure, and the direction it should take. The one new leading fact which I affirm as demonstrated, is sufficient to indicate very distinctly the mode of treatment which offers the only rational hope of removing the gouty diathesis, and also to explain the success which has partially attended the various empirical methods which have been adopted for the cure of the disease.

The main object to be pursued towards the effectual cure of the gouty paroxysm, by the removal of its immediate cause, is the resto-

ration of the natural functions of the liver, as indicated by a copious discharge of bile through the bowels. This object may be attained, more or less promptly and sufficiently, by the administration, either, of calomel or cholchicum, or of some other potent deobstruent of the hepatic system. But here, as in other instances familiar to the minds of my readers, the principles of combining analogous remedies will be found strikingly advantageous. My own practice has long been to rely exclusively for the cure of gout on the following prescription, the effects of which should be carefully watched by medical attendants :—

R. Hydr. Chlorid.

Ext. Colchici Acet.

Ext. Aloes purificati.

Pulv. Ipecac. aa. gr. j.

M. et fiat pilula quartis horis sumenda.

Two or three of such pills are generally enough to produce a considerable disorgement of the liver, which I then assist with one or two doses of the compound decoction of aloes. By this time the gouty paroxysm has either ceased, or there is a marked subsidence of all its distressing symptoms. The pills may then be administered at longer intervals, varying from eight to twenty-four hours, according to circumstances.

The treatment I have above described possesses the cardinal and paramount requisite of being effectual to the end proposed. In addition to this, it is important to know that the combination of calomel and aloes with cholchicum, while quickening and corroborating the specific action of the latter on the liver, seems also to neutralize all the noxious properties of that hitherto formidable medicine.

In conclusion, I repeat, that what is called a fit of gout, is only a peculiar manifestation of a functional disorder of the liver ; and that whatever brings about a free evacuation of bile, puts an end to the gouty paroxysm.

Having assumed, in the above tract, that the cause of gout is the effect of poison, generated *eventually* in the liver by an imperfect assimilation of food, or indigestion, I cannot refrain borrowing from my highly learned and intellectual friend Dr. Watson, an observation which I take the liberty of quoting from his "Lectures of the practice of Physic," vol. ii., p. 641 :—"I need not remind you of the various ways in which extraneous matters find entrance into the blood. Poisons, under their proper shape and name ; medicines, which, misapplied, become poisons ; our natural food and drink, which the folly of man converts into poison ; the products or dregs of the secondary assimilative process ; these are common sources of impurities, more or less hurtful, which mix and circulate with the vital fluid."

On the Catarrhal Pneumonia and Lobar Pneumonia of Children.

By MM. TROUSSEAU and LASEGUE.

Catharrhal (or lobular) pneumonia is a disease as distinct from simple (lobar) as variola is from erythema. This is seen in their respective mortality. Of twenty children who have been admitted into the hospital clinique suffering from simple pneumonia, in six months all have recovered; of nearly thirty who were attacked with catarrhal pneumonia, not one survived. Most of the first class of cases exhibited an excessive degree of acuteness, which burnt out like a fire of straw; while several of the second, notwithstanding their fatal termination, commenced with very mild symptoms.

Simple pneumonia hardly ever affects a child below two years of age, and rarely those of two or three, but becomes of more and more frequent occurrence as the child approaches adolescence. Its cause and symptoms resemble those of the adult, with some modifications. After twenty-four or thirty-six hours, the souffle and bronchophony can alone be heard; the crepitant râle, which is often observed in the adult when the patient coughs even when much souffle is present, is hardly ever heard in the child. So afterwards, from day to day, without the crepitation of resolution, the souffle disappears, leaving only a feeble respiration. The progress of the disease is also more rapid than in the adult. In the mild form of the disease, recovery takes place rapidly, and in large proportion; but in its grave form, many cases are lost by any mode of treatment. M. Trousseau generally bleeds the child, gives it an emetic of sulphate of copper, and then a mixture containing Kerme's mineral and extract of digitalis.

Catarrhal pneumonia commences with a catarrh, which rapidly extends to the small bronchi, and then we hear numerous and small subcrepitant râles disseminated over both lungs, and especially posteriorly. These râles may persist for four, six, eight, or fifteen days, without any souffle becoming manifest; but sooner or later we hear a souffle, the resonance of the cries of the voice, or at least a prolonged respiratory murmur. While these latter sounds, common to simple and catarrhal pneumonia, are thus manifesting themselves, we find by the subcrepitant râles that the capillary catarrh is still persisting in the rest of the lung. The disease has extended from the mucous membrane to the parenchyma of the organ. Febrile action is less than in ordinary pneumonia, being predominant at some portions of the day and entirely ceasing at others; and these alternations of better and worse may continue for fifteen, twenty, or thirty days; the disease being originally a pulmonary catarrh, and partaking of the obstinacy and uncertainty of catarrhal complaints. As more and more of the parenchyma becomes

implicated, the fever becomes more continuous and intense, and the respiration more difficult, until the children die exhausted. In other cases, in which the bronchial phlegmasia was very intense from the first, and the lung became rapidly invaded over a great extent, death takes place with rapidity. The progress of the disease has usually been more rapidly fatal when it has succeeded to measles, chronic disease of the skin, or laryngitis. All means of treatment that have been tried have proved impotent.

These two affections may be compared, *exceptis excipiendis*, with erysipelas and phlegmon. Erysipelas traverses the surface, like the catarrh; and when it persists too long, it induces ulcerations of the skin, furuncles, and circumscribed subcutaneous abscess, just as the capillary catarrh induces suppuration of the lobules, little abscesses of the lungs, and circumscribed pneumonias. Simple pneumonia, on the other hand, progresses like simple phlegmon, violent in its febrile reaction, but terminating abruptly and rapidly.

It must not be supposed, from what has been said, that catarrhal pneumonia is almost invariably fatal. Although this is the case amidst the miasmata of an hospital, which exert effects at once so terrible and so difficult to avert, it is not so in private practice. In this, one-half the patients may be cured by repeated vomiting, flying blisters, antimonials, and digitalis; but how terrible are the ravages of a disease which, under the most favourable circumstances, kills one-half its subjects!—*Brit. and For. Med. Chir. Rev. and Dublin Med. Press.*

Leucocythæmia.—Prof. G. B. Wood called the attention of the college to a form of disease described by Dr. Bennett, of Edinburgh, under this name, the leading characteristic of which is an excess of the white corpuscles of the blood. He stated that there was a case of it in the Pennsylvania Hospital. The patient, a male of about seventeen years of age, was admitted, laboring under the symptoms of anæmia, with some anasarcaous effusions, general debility, and great enlargement of the spleen. The blood was examined by Dr. Adenell Hewson, resident physician of the hospital, who is accustomed to microscopic investigations, and found by him to contain a great excess of white corpuscles. There could be no doubt that it was a case of the leucocythæmia of Dr. Bennett. The patient was put upon the use of iron and quinia, with a good diet. Under this treatment, the dropsical symptoms and enlargement of the spleen rapidly diminished, and the patient soon became restored to a degree of robustness, which was in strong contrast with

the debilitated appearance he presented at his entrance into the institution. The spleen was evidently diminished in bulk ; but at the same time the liver was found to have become enlarged. On examining the blood under the microscope, it still exhibited the same excess of white corpuscles. Dr. Wood supposed that the patient had been overstimulated by the treatment to which he had been subjected. A less invigorating diet was directed, small doses of blue mass were administered, and a blister was applied over the right hypochondriac region. Under this treatment the condition of the liver became improved ; but, as the symptoms of anæmia reappeared, and the spleen began again to enlarge, a blister was applied over the left hypochondrium, and nitro-muriatic acid was substituted for mercury. The visceral disease now rapidly diminished ; but as the anæmia continued, recourse was again had to chalybeates. All the symptoms now improved ; and an examination of the blood showed a very considerable diminution in the number of white corpuscles. When the patient was last seen by Dr. Wood, the spleen was of nearly its natural dimensions, and the anæmic symptoms had almost disappeared ; but the liver still remained somewhat enlarged. — *Quart. Sum. Trans. Coll. Phys. Philadelphia, Jan. to April.*

On the Habitual Presence of Sugar in the Urine of the Aged.

The *Gazette Médicale* of last month contains an article on this subject, which is suggestive of important reflections on the pathology of diabetes. Our readers will remember the researches of MM. Bernard and Barreswill, which seem to prove that sugar exists normally in the urine, whatever diet be used, and that this saccharine elaboration by that organ is dependent upon the action of the pneumogastric nerve. A further question must, however, be appended to this discovery, viz., what becomes of this sugar after it has gained access to the general circulation? What is its use, and how is it eliminated? Although differing in their opinions on some points of this inquiry, most physiologists agree, that it is eliminated by combustion in the lungs, and one M. Reynoso has further sought to establish (*Provincial Journal*, January 7,) the fact, that when the respiratory process is impeded, sugar is excreted with the urine, and has, by experiment ascertained, that sugar may thus be made artificially to appear in the urine. Thus far our information on this interesting subject had reached, when a new element was infused into the inquiry by the researches of M. Dechambre.

It occurred to this pathologist, that if M. Reynoso's theory be correct,

sugar ought to be found in the urine of aged persons, as in them the respiratory functions are notably diminished in activity ; he accordingly undertook some investigations, the result of which has been to induce him to announce, *that sugar is an habitual ingredient in the urine of the aged.*

Lupus Cured by Enormous Quantities of Cod-liver Oil.

L'Union Médicale mentions a case of lupus in which the ulcerations cicatrized under the influence, or during the administration of Cod-liver oil. The patient was a young man, aged 23, residing in the country, and was admitted into the hospital of Ghent on the 6th of December, 1850. The disease had manifested itself in various parts of the face and chest, and was of old standing. After purging and rest, half a pound of oil was given in the day, two equal halves being taken morning and evening ; the daily dose was gradually carried to three pounds, with occasional interruptions when the appetite failed, or diarrhœa came on. The patient was in the mean time well fed, had wine and beer, and the ulcerated spots were successively touched with tincture of iodine, lemon-juice, and nitrate of silver. In the space of about seven months the cure was complete, all the lupoid ulcerations, to the number of three or four, were completely cicatrized, and the patient had purchased this result by swallowing during that period 265 pounds of cod-liver oil !

[We have long entertained the conviction that lupus is a disease of scrofulous nature, and like other manifestations of that cachexia, is more benefitted by cod-liver oil than by any other medicine. We have thus treated several cases successfully, but never found it requisite to administer more than a table-spoonful thrice in the day.—ED. P. J.]

Cauterization of the Glottis in Whooping Cough.

M. Joubert has published the results of his experience of this mode of treating whooping cough. He has treated in all 98 cases in this manner, but he excludes 30 of these as not being worthy of reliance. The remaining 68 cases he divided into three series, according to the period at which the treatment was commenced. Of these the general results were, that in 40 the cure was rapidly effected, in 21 a marked relief was experienced, and in seven cases only the treatment failed altogether.

MATERIA MEDICA.

Indian hemp as an oxytomic. By JOHN GRIGOR, M. D., Nairn.

At the meeting of the Edinburgh Obstetrical Society, July 1850, Dr. Simpson stated that " he had been induced to try the effects, if any, of Indian hemp, during labour, in consequence of Dr. Churchill stating that it possessed powers similar to those of ergot of rye in arresting hæmorrhage, when dependent upon congested states of the unimpregnated uterus. In the few cases of labour in which it was tried, parturient action seemed to be very markedly and directly increased after the exhibition of the hemp, but that far more extensive and careful experiments would be required, before a definite opinion could be arrived at relative to its possession of oxytomic powers, and their amount."

In the last August number of the *Monthly Journal of Medical Science*, there is an article, by Dr. A. Christison, on the parturient effects of Indian hemp, being a continuation of a previous one on the natural history, &c., of that medicine. These remarks are, so far as I know, the first and last that have been given birth to on that peculiar, and as I think uncertain, effect of the *Cannabis Indica*. I could have wished that these observations had been made on a more extended scale, and the effects more particularly and individually noticed, yet I will hope that my evidence may induce some others of my brethren to try it and note its effects, so that from step to step we may at length attain a full and correct knowledge of its powers and defects as a promoter of the labour pain.

Since reading Dr. Christison's seven cases, conducted at the Maternity Hospital of Edinburgh, I have used the Tinct. *Cannabis Indicæ* (24 grs. ext. to ℥j.) in sixteen cases. In nine of these, though given to the extent of ℥ij. ss. in separate doses of 25 and 35 drops at a time—in some in quick succession, in others at longer intervals—I could not perceive any increased uterine action, nor the slightest physiological change in any one way during labour or afterwards, with the exception of one instance of sleep (much required at the time) in a lady, far from strong, confined of her third child, and much exhausted by inefficient throes, in whom the third ℥ss. dose completely arrested the pains and induced sleep, which continued for an hour, when she awakened refreshed. Labour then set in in earnest, chloroform was given, and the child was speedily born. These nine cases made good recoveries.

In the seven cases in which the tincture of hemp succeeded so well with me, five were cases of first confinement, of satisfactory though very slow labour, and phlegmatic temperament. I have noticed the contractions acquire great increase of strength frequently immediately

on swallowing the drug, and have seen four or five minutes elapse ere the effect ensued ; and if none was induced within the latter space of time, I have not observed its effects at all afterwards, notwithstanding repeated doses. In these few cases, I had opportunities of giving it from the time when the os uteri would admit the point of my finger till the expulsion of the child. Judging from experience, I believe that, in appropriate cases for the use of this stimulant, and when effectual, it is capable of bringing the labour to a happy conclusion, considerably within a half of the time that would otherwise have been required, thus saving protracted suffering to the patient, and the time of the practitioner.

I have not observed it to possess any anæsthetic effects. I have used it in two cases along with the inhalation of chloroform, and did not observe that that agent interfered in any way with its action. When the effects of the hemp were subsiding, I have been able to recal and keep up the "good pains", by the addition of ten drops, given from time to time. I consider the expulsive action of the cannabis to be stronger than that of the ergot, but less certain in its effect ; and it has the advantage over the ergot, of usefulness in the early stage of parturition. I believe that the previous ineffectual administration of the hemp does not interfere with the after-exhibition and full working of the ergot.

Such are my brief observations on the new and interesting use to which Bang, or the Hachisch of India, has been put. In the few cases in which I thought its administration safe, and not counter-indicated by malformation, &c., you have given the result of those in which this effect was, and was not displayed. I cannot conclude these remarks without entering my dissent against the use of uterine medicinal stimuli in general, on account of the frequent difficulty of accurate conception of relative dimensions of parts, &c. Yet all obstetricians must acknowledge that, in many cases, such stimuli are indispensable ; and to be possessed of one capable of so early application, is decidedly a matter of much importance. I would also notice that in labour, whether the cannabis shows its peculiar effect on the uterine contractions or not, there seems, as in tetanus, &c., to be a very great tolerance of the drug—nor have unpleasant consequences, so far as I have seen, appeared afterwards ; and whilst it is acknowledged as a powerful controller of inordinate muscular spasm, it is equally, in many cases, a powerful stimulant of the uterine muscular fibre in labour, if not in the unimpregnated.—*Monthly Jour.—Dublin Med. Press.*

OPHTHALMIC SURGERY.

On congenital and hereditary epicanthus. By Dr. SICHEL.

CONGENITAL epicanthus is noticed by Dr. Sichel to frequently accompany that abnormal configuration, which is characterised by flattened and wide nasal bones. In these cases, the integument, instead of being stretched, evenly between the root of the nose and the inner commissure of eyelids, form a semilunar fold directed from above downwards, with the concavity looking outwards and towards the eyeball. It sometimes extends from the inner third of the upper eyelid to the junction of the inner with the middle third of the lower one, covering in the caruncula lachrymalis, and a great part of the sclerotica; sometimes it commences less superficially, at a greater distance from the eyebrow, yet so that it is not shorter, but only narrower. In the latter case it may be readily overlooked. The effects vary according to the degree. The fully developed form gives rise to a peculiar disagreeable expression of countenance reminding one of the Mongolian race. There is difficulty in opening the eyelids; and lateral vision is much impeded, the eye being often partially covered when the patient looks inwards. The puncta lachrymalia generally occupy their normal position.

The deformity is congenital, and is usually present on both sides. Dr. Sichel regards it as resulting from a development of the integument, disproportionate to the size of the nasal bones which support it. He has arrived at the conclusion that it is connected with flattened nasal bones, and that it may be considered as transitional between the Caucasian and Mongolian races, from an examination of the Iowa Indian, some time ago exhibited in Paris. The following points connected with the subject are interesting, but require to be determined by accurate data. 1. Does epicanthus become more frequent as we advance eastward: *i.e.* among the Mongolians than among the Caucasians? 2. The more aquiline the nose is, the less likely is epicanthus to occur; and Dr. Sichel has never found it in persons of the Jewish race. 3. It decreases from north to south; especially in Spain, where the European and the Asiatic blood of the Caucasian race has been intermixed.

The deformity may be hereditary. Dr. Sichel saw a gentleman, with epicanthus, who had five sons and one daughter all similarly affected, while one son and four daughters were free from the deformity. One of the sons had a daughter, who also had epicanthus.

Epicanthus is sometimes imperfect, there being a mere trace of it on one or both sides. It is not of much importance, not impeding the motion of the eyelids, nor producing deformity properly so called. Single epicanthus is very rare, and may be regarded rather as a species of im-

perfect double epicanthus, the rudimentary form of the disease being present on the other side, and the nasal bones possessing the peculiar conformation.

The treatment consists in raising a pinch of skin at the root of the nose, and excising it. The edges of the wound are brought together, and by these means the folds are obliterated. The most common complications of epicanthus are ptosis and convergent strabismus; erosion of the abnormal fold from the tears and irritating secretion may also occur, and a kind entropium may sometimes attend the deformity.—*Lond. Jour. of Med.*

This is a natural defect, amounting to such deformity that it may often be called a congenital malformation; yet were it not from its peculiar effect on the countenance, it might pass observation, as many queer features do. We are somewhat sceptical as to the uniform success of an operation.—*Ed Dublin Med. Press.*

The formation of central pyramidal cataract. By DR. VON AMMON.

DR. VON AMMON describes the case of an unhealthy child, two years and a half old, the subject of frequent general convulsions. It held the head with the chin resting on the sternum; the eyes rotated violently; the eyelids would suddenly be opened wide, and then convulsively closed; and with this sometimes alternated a rotatory motion of the head. The iris was brown; the pupil small and eccentric, but circular. The cornea was rather lengthened, and the limit between it and the sclerotica was not well defined. Both were very white; viewed laterally, the cornea was somewhat conical. Through the narrow pupils, there projected a clear white pyramidal body into the anterior chamber. On dilating the pupils with belladonna, the projection appeared conical; the apex was very white, the base less so, and it appeared to be seated on the lens and its capsule. The child having died of convulsions, an examination of the eyes was made.

The eyes were of a more globular form than natural. At the junction of the sclerotica with the cornea, the sclerotica formed a projection, giving rise to the appearance of a circular channel. From the side, the projection through the pupil into the anterior chamber was seen; it was closely surrounded by the iris, so that the transparent part of the crystalline lens could not be seen through the pupil. Viewed from behind, the lens and capsule appeared normal; and through it were seen two dark circles, produced by the base of the pyramidal projection. The sclerotica was thicker than usual; the iris was brown; the

cornea moderately thick; Descemet's membrane was clear, without folds. The pupils were not in the centre of the iris. The ciliary ligaments were broad; the ciliary bodies not quite circular; the ciliary processes were normal; the *corona ciliaris* was imperfect. The retina, rather thick, presented on its inner surface a great number of projections, some round, others long, which collapsed on being pricked with a cataract needle, and some gave exit to a clear glutinous fluid. The central vessels were normally developed on the retina and vitreous body. The yellow spot and the fold were largely developed. The crystalline lenses were rather oblong, but of normal colour, and quite transparent. Between the capsule and the edge of the lens there was, in one eye, a yellow clear ring, apparently formed by the *liquor Morgagni*; this disappeared when the capsule was opened. Somewhat off the centre of the lens were found the white, opaque, pyramidal bodies, which were very easily detached. These bodies resembled mushrooms, pointed at the top. Where each had lain on the lens, there was a slight depression; and a deeper one in the centre, where the stem of the mushroom-like body had been inserted. At this point, the capsule of the lens was absent; but whether from absorption, or from close union with the pyramidal bodies, could not be ascertained. The pyramids were composed of layers, some of which were thick, others thin, some clear, others darker. Under the microscope, a thin section of them appeared amorphous.

Dr. Von Ammon has traced the commencement of this affection in several cases, both in the fetus and in the child after birth, as a depression in the lens, arising probably from defective development. The anterior wall of the capsule is prolonged into this depression; and the cataract is probably formed by gradual deposition from the aqueous humour.—*Lond. Jour. of Med.*

This was evidently one of the cases of congenital central opacity of the capsule of the lens called *cataracta centralis* by the Germans, occurring in an oscillating eye, such as often accompanies congenital cataract. There was nothing unusual in it, and the elaborate report of the dissection only tell that the eye was otherwise free from defect.—*Ed. Dublin Med. Press.*

Treatment of Ophthalmia by occlusion of the eyelids.

M. FORGET, after passing in review the different means used in the treatment of ophthalmia, directs particular attention to the use of cold applications, and occlusion of the eyelids. The use of cold water he

believes to be beneficial in almost all cases of ophthalmia. The application must be permanent, frequently renewed, and continued until the symptoms have completely disappeared. The addition of vinegar, acetate of lead, alum, &c., is almost useless. He has seen good effects result from this treatment in cases of simple injection, in severe inflammation, pain, photophobia, and even in ophthalmic blennorrhœa. Even in cases where topical applications are ill borne—in ophthalmia with relaxation of the tissues—the employment of cold water may still be useful. This remedy necessitates occlusion of the eyelids; and M. Forget doubts whether the benefit is not really owing to this circumstance. In many cases simple occlusion is sufficient, but cold applications are a useful adjunct where there is much redness, heat, pain, and swelling. The advantages of occlusion are, that the organ is kept in a state of repose, protected not only from light, but from the air and from foreign bodies; that the eye is maintained in a state of equable moist heat; and that the eyelids are made to exercise a mild, equal, permanent, *natural* compression on the inflamed parts. M. Forget relates some cases of severe ophthalmia, in which occlusion was tried with marked benefit, sometimes after the usual remedies had been employed without effects. It is sufficient to keep only the affected eye closed; a bandage is the best means. In cases of rheumatic, scrofulous, or other specific forms of ophthalmia, other means may also be necessary. When there is much muco-purulent secretion, it will be necessary to cleanse the eye carefully.—*Lond. Jr. of Med.*

This is the treatment so generally adopted by old women and young surgeons of the blue-stone and green-shade school in Ireland, and which blinds so many poor children. It is scarcely necessary to warn our readers to avoid carefully every approach to such mischievous and absurd practice.—ED. DUBLIN MED. PRESS.

MISCELLANEOUS.

Trial for defamation.—LIZARS *versus* SYME.

This action arose on account of certain terms used by Mr. Syme, when speaking of Mr. Lizars, in a letter addressed to the Editor of the *London Medical Gazette*, in which periodical it was originally published in an incomplete form, and afterwards in full in the *Monthly Journal of Medical Science*. The trial, which had for some time been looked forward to with no little interest, took place on Monday, the 26th instant, before the Lord President and a jury. It commenced at ten o'clock,

a.m. and did not terminate till seven p.m. During the whole period the Court-room was crowded, and very many members of the Medical Profession in Edinburgh and its vicinity were present for longer or shorter periods. Damages were laid at 1000*l*. The Counsel for Mr. Lizars were Mr. Deas and Mr. Macfarlane; his agents were Messrs. Inglis and Leslie. Mr. Syme's Counsel were the Solicitor-General, Neaves, and Mr. Patton; his agents, Messrs. Smith and Kinnear.

Mr. Macfarlane opened the case for the pursuer, Mr. Lizars. In the number of the *London Medical Gazette* for July 4th, 1851, there had appeared the following letter from Mr. Syme:—

“ Sir,—I have only to-day happened to see your Journal of May 16th which contains some statements that certainly should not have remained so long unnoticed if they had been known to me sooner. You say, ‘A fierce paper war has arisen between the two Edinburgh Professors, Syme and Lizars,’ but must, or at least ought to know, that I have not addressed a single word upon the subject in question to the so-called ‘Professor.’ Within the last eight months, I have performed this operation nine times in the Royal Infirmary of Edinburgh, in the presence of the largest class of surgical clinical students in Her Majesty's dominions. These gentlemen can testify, that in no instance has there been bleeding, extravasation of urine, or any other unpleasant consequence, and that all the patients speedily and completely obtained the relief which they desired. As you say that ‘something more than the guarantee of Mr. Syme's reputation is wanting to assure the surgeon that he would be justified in having recourse to the proposed operation,’ I beg to inquire if you think the evidence thus afforded sufficient, and if not, what further proof you deem requisite to establish the safety and efficiency of my operation.

“ I am, Sir, your obedient Servant,

“ JAMES SYME.

“ Edinburgh, June 26, 1851.”

In this letter, the passages marked within inverted commas are taken from a review of Mr. Lizars' work on “Stricture of the Urethra,” published in the Number of the *Medical Gazette* for the 16th of May, 1851.

The following editorial note followed Mr. Syme's letter:—

“ * * Certain parts of this letter, which would fall under the English law of libel, have been omitted. We give Mr. Syme the benefit of stating publicly, that a paper war has not been carried on between the two Professors, although we have had quite enough of controversial writing on the subject in the journals and independent publications. We have no doubt that the evidence referred to by Mr. Syme will be sufficient to justify those who approve of the operation of stricture by incision to

adopt Mr. Syme's practice." Subsequently to the publication of the above in the *Medical Gazette*, Mr. Syme's letter had appeared in full in the *Monthly Journal* for August, 1851; the passages omitted in the former periodical being,—“Regarding him as long placed beyond the pale of professional respect and courtesy;” and, “In estimating the value of my operation, you proceed upon the supposition, that the allegations of Mr. Lizars and his assistant, Dr. Muller, are well founded; but in fairness to your readers, if not to myself, should have mentioned, that the statements of these persons, in so far as they attribute bad effects to the operations which I have performed, for the remedy of stricture by division, have been declared by me to be all utterly devoid of truth.” The following remarks preceded the letter, as inserted in the *Monthly Journal*:—“The *London Medical Gazette*.—One of the conductors of this Journal (*Monthly*) lately felt it necessary to address a letter of remonstrance to the Editor of the *London Medical Gazette*, who published it in an imperfect form, under the pretext, that the matter excluded would have been subject to the English law of libel. Two results have followed: in the first place, the letter is rendered meaningless; and, secondly, the author is made to appear to have used libellous language. In order that our readers may judge how far this conduct was warranted, we now place before them the letter in its original form—the omitted portion being enclosed within brackets.” In these passages the counsel submitted a libel was contained, and that its publication was capable of injuring Mr. Lizars, in his professional character, and in the estimation of his professional brethren. The following witnesses were examined for the pursuer, Mr. Lizars:—

1st. Dr. Taylor, of London, who, as Editor of the *London Medical Gazette*, had struck out the passages alluded to from Mr. Syme's letter before its publication in his Journal, believing these passages to contain a libel, and who thought that the meaning they conveyed was, that Mr. Lizars was a disreputable character.

2nd. Mr. Kesteven, of Upper Holloway, who was author of the review of Mr. Lizars' work on Stricture, in the *Medical Gazette*, and who attached the same meaning to the omitted passages as did Dr. Taylor. On cross-examination, this gentleman admitted, that he had no very correct foundation for the assertion, in the commencement of the second division of his review, that a fierce paper war had arisen between the two Edinburgh Professors.

3rd. Dr. Renton, of Dalkeith: Knew Mr. Lizars well; often consulted him. Read the *Monthly Journal*, and believed that that journal was read a good deal. [Here two of the conductors, who were present were, seemingly, greatly pleased.] Had formed the opinion, on read-

ing Mr. Syme's letter in the *Monthly Journal*, that the statements it contained were capable of injuring Mr. Lizars in the estimation of those who did not know him well.

4th. Mr. Sanderson, of Musselburgh, Surgeon R.N. : Impression derived from perusal of the letter was, that, in some way or other, Mr. Lizars had misbehaved himself. Knows Mr. Lizars well, and has consulted him, though he generally performs his-own operations.

5th. Dr. Sibbald, of Edinburgh : Thinks that the general impression on the minds of those who read Mr. Syme's letter in the *Monthly Journal* must have been, that the terms used were capable of injuring Mr. Lizars. Is not a subscriber to the *Monthly Journal*, but reads it. Is asked to name the conductors ; which he does correctly, with this exception—that he only *thinks* Dr. Bennett is a professor in the University.—On cross-examination : In a case of life and death, he (Dr. Sibbald) would be inclined to throw courtesy aside. There have been many eminent men in the Medical Profession who have had no great amount of courtesy : the late celebrated Mr. Liston might be taken as an example.

To Dr. Sibbald, Mr. Macfarlane put the following question : Would you be surprised that Mr. Syme should show a little want of courtesy to any medical man in Edinburgh ? the question was disallowed.

6th. Professor Miller, of the University of Edinburgh : Looked upon Mr. Syme's words as applied to Mr. Lizars, as meaning something disreputable.

7th. Mr. Highley, jun., bookseller and publisher, London : Heard several medical men in London speak in regard to Mr. Syme's letter, and the expressions used towards Mr. Lizars. Was shown Mr. Lizars' work on Stricture, which was published by his firm. Had read it ; and seemed to acquiesce in statement of the Solicitor-General, that the book was a very amusing one.

At this stage, Mr. Highley was removed from the witness-box, (he did not return to it,) an objection having been raised by Mr. Deas to the reference made by the Solicitor-General to passages in Mr. Lizars' work on Stricture. This reference had been made with the view of showing the state of the parties at the time of its publication, and as further throwing light on the meaning of words in Mr. Syme's letter. After considerable discussion, reference to the work was disallowed and (Mr. Bowie, of the Philosophical Institution, Edinburgh, having deposed that the *Monthly Journal* lay on the table of the Institution, and was much read) the evidence for the pursuer was closed. In opening the case for the defender (Mr. Syme), Mr. Patton contended, that, in using the terms, " regarding him as long placed beyond the pale of professional

respect and courtesy," Mr. Syme merely expressed his own individual opinion of the position he (Mr. Syme) was necessitated to occupy towards Mr. Lizars ;—the "long" had reference to certain circumstances which had previously occurred, and had determined Mr. Syme in the course he had taken. In support of the view, that Mr. Syme's statement was only of individual application, and was not intended, and could not be supposed to indicate the position in which Mr. Lizars stood towards the Profession generally, all the witnesses examined for the defender gave evidence. These were—1. Professor Christison ; 2. Professor Simpson ; 3. Dr. Scott, of Dumfries ; 4. Dr. Johnston, of Berwick ; 5. Dr. Combe, President of the Royal College of Surgeons, Edinburgh ; 6. Dr. Carpenter, of London ; 7 Dr. Robertson, Editor of *Monthly Journal*.

Professors Christison, Simpson, and Carpenter underwent a cross-examination by Mr. Deas, as to their reasons for limiting the meaning of the words, "placed beyond the pale of professional respect and courtesy," to the position in which Mr. Lizars stood to Mr. Syme individually. These reasons appeared to be chiefly because the word "I" preceded the libelled words, because it could not be otherwise, being, according to Dr. Christison, notoriously known, that Mr. Lizars did not stand without the pale of professional respect and courtesy, except as regarded Mr. Syme. Dr. Christison, for example, had met Mr. Lizars in consultation, and that fact was known to Mr. Syme ; and, lastly, because it was not said that he (Mr. Lizars) had placed himself without the pale of the respect of the Profession.

In finally addressing the jury, and in praying for a verdict for the pursuer (Mr. Lizars), Mr. Deas contended, that it was absurd to limit the statement libelled as the individual opinion of Mr. Syme regarding Mr. Lizars ; if it were so limited, the meaning meant to be conveyed might have been very easily expressed. But no man has a right to publish to the world his individual opinion of a professional brother, in the way Mr. Syme had done ; and it was all the more crushing, as being in this case the opinion of a man greatly respected, and whose sentiments were sure to carry weight. He contended, that the statements were injurious to Mr. Lizars, and were liable to make parties, unacquainted with the mutual position of the two Professors, believe Mr. Lizars so to have damaged himself as to have placed himself beyond the respect and courtesy of the Medical Profession.

The Solicitor-General, in craving a verdict for the defender (Mr. Syme) pointed out errors in the way in which the libel had been drawn up, whereby it was intended to give to words a meaning and force they could not be conceived to possess. He believed, that in writing of Mr. Lizars in the way he had done, Mr. Syme merely wished to indicate to

the readers of the *Monthly Journal* the position in which Mr. Lizars and he mutually stood, owing to the way in which he (Mr. Syme) had been attacked from time to time by Mr. Lizars.

After an address from the Lord President, the jury retired, and, after an absence of about fifteen minutes, returned into Court, having found that Mr. Syme did not intend to injure the character or professional standing of Mr. Lizars, and therefore giving a verdict for the defender (Mr. Syme.)

MYSTERIES OF MINCING LANE.

There are few persons who have not in the course of their lives swallowed certain nauseous doses of bark, colocynth, aloes, or castor oil ; who have not indulged in the luxury of otto of rose, or musk ; who have not had some dealings with the colourman, or the dyer ; and yet I feel tolerably certain that not one hundreth portion of those same readers know anything of where such articles come from, how they arrive here, and through what channel they are finally distributed. It will not occur to them that those costly drugs and dyes, and perfumes arrive in this country from all parts of the world in huge packages ; that, in fact, ship loads of them come at a time ; that the bales and cases which contain them fill enormous piles of warehouses in three or four docks ; that several hundred merchants and brokers obtain a handsome living, many realizing fortunes, by their sale ; and that some millions sterling are embarked in the trade.

These things form a little known world of their own. They thrive mostly in Mincing Lane London.

Even the omniscient Times knows nothing about them. The thunder is powerless between the drug circle. Search its acres of advertisements but it will be in vain ; nothing is to be found there of the dye and drug sales which are to be held on Thursday next at Garraway's. These mysteries are only to be learnt at the "Jerusalem," in Mincing Lane, London, at the "Baltic," or from the columns of the Public Ledger, a daily periodical, devoted to all such matters, and known only to the initiated. In its columns you will find a motley list of all the vile materials of the Pharmacopoeia ; and in such quantities as to justify a belief in the existence of some enormous conspiracy to poison all living creatures.

Mincing Lane is like no other lane, and Mincing Lane men are like no other men.

Any Thursday morning, between the hours of ten and eleven, and at every alternate doorway, may be observed catalogues of various

drugs and dyes that are to be on sale at noon, gibbeted against the door-posts. Mincing Lane men will be seen rushing madly along the pavement, as if a fire had just broken out, and they were in quest of the engines, jamming innocent lookers on against gateways, wagon-wheels and lamp-posts.

It was into one of these obscure passages that I turned with a companion groping our slow way up a narrow staircase, at the risk of constant concussions with frantic Mincing lane men. We found ourselves in a broker's office, and thence in his sample room. This was a large square apartment, with wide counters extending round the four sides, and several tables and stands across the centre.

On these lay papers containing various old-looking, unpleasant-smelling substances. My attention was chiefly attracted by a number of rows of pretty looking bottles containing some pale bright liquid, which several of the "Lane men" were busily sipping, smacking their lips after each taste, with uncommon relish. I inquired if the thin-looking bottles contained Johannesburg or Tokay? "No," I was answered, "castor-oil!" After that, I was prepared to find the "Lane men" hob-an-nobbing laudanum or nibbling lumps of jalap or aloes.

The time appointed for the sale approached, and leaving the dark broker's office, we did our best to reach Garraway's where the auction of these articles takes place. Scores of clerks and principals were proceeding from the Lane towards the same spot. We hurried along Fenchurch street, across Gracechurch street, and up a part of Lombard street, following close in the rear of a rather portly broker, who cleared a way for us in quite an easy off-hand manner, that was very pleasant to us; but not so agreeable to the six men who were offering toasting-forks and wash-leather bags for sale at the corner of Birchin Lane.

I never could account for the extraordinary demand existing for those two articles in that neighborhood; unless it be that bankers' clerks indulge freely in toast and water, and carry their dinners to office in the leather bags.

Out of Birchin Lane, down one narrow passage to the left, and round another straight forward, and there was Garraway's. We soon lost sight of the pictures in frames for sale outside, and turned to study the pictures out of frames inside. In the dark heavy-looking coffee-room, there were assembled some of the mightiest City potentates,—the Alexanders, Nimrods and Cæsars of the drug and dye world. I drew in my breath while I viewed that knot of stout, well-favored persons, congregated at the foot of the old-fashioned staircase leading to the public sale room above.

I trod those stairs lightly, half in veneration, and laid my hand gently

and respectfully on the banisters. that I knew must have been pressed of old by mighty men of commerce. Down those wide sweeping stairs many had oftentimes tripped lightly homewards, after a day of golden labor, laden with the fruit of the fabled garden; sometimes, too, with gloomy brows, and feverish, flushed faces.

What a strange scene presented itself in the sale-room, when, by dint of scuffling and squeezing, we managed to force our way in.

There could not have been a man left in all Mincing Lane, to say nothing of Fenchurch Street. The fog had come up the stairs and choked up the gas-lights, as effectually as though all the Lane men had been smoking like double Dutchmen. The queer little pulpit was shrouded with a yellow haze. The windows were completely curtained, half with cobwebs, half with fog. The sale was about to commence, and the din and war of words got to be bewildering; whilst hundreds of pens were plunging madly into inkstands and scratching imaginary sentences and figures upon myriads of catalogues.

Suddenly a cry burst upon my ear so dolefully and shrilly, that I fancied somebody had fallen down the old-fashioned staircase. It was only the "house-crier," proclaiming in a painful distracted sort of voice, that the sales were "on." Every man to his place, if he can find one! Old musty brokers, of the last century, with large watch seals, white cravats, and double chins, grouped together in one dark corner: youthful brokers, with very new hats, zephyr ties and well-trimmed whiskers, hovered about the front of the auctioneer's pulpit: rising brokers, with inky hands, upturned sleeves and dusty coats, and an infinity of papers protruding from every pocket, were in all parts of the room ready to bid for anything. Ranged against the walls on either sides were scores of incipient brokers—the lads of the Lane. Hundreds of pens began to scratch upon catalogues; hundreds of voices were hushed to a low grumbling whisper.

The first seller (every vender is an auctioneer at Garraway's) mounted the tribune, and the curious work began. My former experience had shown salesmen to be anxious to make the most of everything, and strive, and puff, and coax, and dally, until they felt convinced the utmost farthing had been bid; and then and not until then, did the "going, going," merge into the "gone," and the coquetting hammer fell. But those were evidently old fashioned, disreputable sales. They don't stand any nonsense at Garraway's. There is no time to consider. The biddings fly about like lightning. Buying and selling at Garraway's is done like conjuring—the lots are dispersed of by *hocus-pocus*. So rapidly does the little nubbly hammer fall on the desk, that one might imagine himself near an undertaker's shop with a very lively business.

I said that the first "seller" was one of the rising men, with dark bushy whiskers, a sharp twinkling eye that was everywhere at once, and a strong piercing voice. He let off his words in sharp cracks like detonating balls. By way of starting pleasantly, he flung himself into an attitude that looked like one of stark defiance, scowling with his dark eyes on the assembled buyers, as though they were plotting together to poison him with his own drugs. Up went the first lots : a pleasant assortment of nine hundred cases of castor oil, two hundred chests of rhubarb, and three hundred and fifty, "serons," of yellow bark. The rising broker stormed and raved as bid after bid, piercing the murmuring din with sharp expletives.

One, two, three, four—the nine hundred cases were disposed of in no time by some miraculous process of short-hand-auctioneering, known only at Garraway's. I thought the broker would have gone absolutely mad, as the bids went rapidly on : some slow man of inferior intellect would have given the buyers time to overbid each other ; he seemed to take delight in perplexing the whole room, and as quickly as a voice cried out "Hep!" the bidding interjection of Garraway's so instantaneously fell the everlasting little hammer ; and as surely did the seller scowl harder than ever, as much as to say, "I should just like to catch any body else in time for that lot" In this fashion above three hundred lots were sold in less time than many people in the last century would have taken to count them up.

The "rising" broker was followed by one of the old school, a pleasant looking, easy going man, the very reverse of his predecessor. He consumed as much time in wiping and adjusting his spectacles, as had sufficed just before to knock down a score of lots. He couldn't find a pen that didn't splutter, and he couldn't make his catalogue lie flat on the desk ; and at last the impatience of the "rising" men, and the Lane lads—Young Mincing Lane—was manifested by a sharp rapping of boot-heels on the floor, which soon swelled to a storm. The quiet broker was not to be hurried ; he looked mildly around over his glasses, and rebuked rebellion with "Boys, boys ! nonsense" The bids went smoothly along ; potent drugs, rich dyes, and costly spices fell before the calculating hammer ; but, each time, ere it descended, the bland seller gazed inquiringly and I almost fancied imploringly at the bidder, lest he had made a mistake, and might wish to retract his rash "Hep !"

The broker who followed, dealt largely in flowing language, as well as drugs and dyes. He assured the company present—and looked very hard at me, as though I was perfectly aware of the fact, and was ready to back him—that he intended to give all his lots away ; he was deter-

mined to get rid of them and he really would not allow his friends to leave the room without distributig his goods among them. Considering his liberal spirit, I thought his friends evinced very little thankfulness ; for the lots moved as slowly as presents could be supposed to do.— There was one nice little parcel—about twenty cases of aloes—that he was determined on giving away to a very musty old dealer, who however, shook his ancient head, and declined the bitter bargain.

There were a few score tons of some mysterious article, with an unintelligible name, that hung somewhat heavily at two pence three farthings per pound.

It was amusing to see how politely anxious the broker was to work the figure up to threepence ; not that he wanted the extra farthing ; he'd rather have flung it into the sea than have felt such a paltry desire ; but he just wanted to see the thing go at even money : it would look so much better in the Price Current, and would make the total so much more easy to cast in the account sales. His winning eloquence was fruitless ; the unpronounceable drug was knocked down at twopence three farthings. When I expressed my astonishment that men of such undoubted substance as I saw there, should condescend to haggle, like any hucksters, at an odd farthing, I was told that trifling as the difference appeared by the single pound weight, the aggregate of the extra farthing upon the quantity offered for sale that day, would amount to some thousands of pounds sterling ; and that, at certain seasons, some paltry odd farthing had realized or lost fortunes.

There were a few more unintelligible things—Mincing Lane jargon—that required interpretation. What “overtakers” could mean, I was at a loss to know ; but I learnt that they were certain extra packages required to re-pack goods, after they had been opened out in the dock warehouses. One small looking seller astonished me by putting up what he termed a lot of “good handy sweeps !”—not climbing boys, but the sweepings of the warehouses.

When the day's work was over ; when the last lot of “sweeps” was disposed of, and buyers and sellers, Lane men and Lane lads, once more mingled in Babel discord ; the dense green fog in the narrow alley peeped in at the sooty windows ; the hazy gas-light over the pulpit, winked at the murkey fog through the glass, flickered, struggled, waned, and went out ; we turned towards the old staircase, slowly merging into the general crowd, and I again heard the names of strange chemicals, and gums, and substances, spoken of in kindly sympathising brotherhood.—Cream of tartar, had, no doubt, felt rather poorly a short time since, for it was said to be “decidedly improving.”

Opium must have been in an undecided and vacillating mood.

during a long period, as I heard it reported to be "showing a little firmness at last." Scammony was said to be "drooping;" as for castor-oil, there was not the slightest hope of its "recovering." It was curious to hear those articles destined for the cure of human maladies, or the ease of human sufferings, thus intimately linked in their own capacities with worldly ailings and earthly infirmities. I almost expected to hear that some of the dyes had got the measles or that whooping-cough had made its appearance in the younger branches of the drug family.

A better estimate of the actual amount of patent medicine which the human family, somehow or other, contrives to imbibe, can scarcely be arrived at, than by an attendance or two at these sales.

Twice in every month—on each alternate Thursday—whole fleet loads of deadly narcotics, drastic aperients, and nauseous tonics and febrifuge, are disposed of as sheer matter of course. At each of these auctions, as much castor-oil is sold as would suffice to float a first-rate frigate. In the course of about three hours, what with drugs, dyes, and perfumery, full fifty thousand pounds worth of property is disposed of, and that, too, of articles which the world at large have no conception of, except as distributed by chemists and others in twopenny packets or sixpenny phials. Vast, indeed, must be the amount of mortal suffering and affluent luxury that can thus absorb, week by week, these gigantic cargoes of physic and fragrance. From east and west the freighted ships arrive. Every nook and corner, every mountain and desert place, is secured for contributions to our Pharmacopœia.

Let any new disease make its appearance among us, and immediately the busy hand of science is at work, and in some remote corner of this wondrous world, some root or seed, or oozing gum is found to battle with the newly-found enemy. Cost is of little moment, so that the remedy be efficacious. It was not many months since "Koussou," a new and valuable medicine from Abyssinia, was introduced. It was immediately bought up at a guinea an ounce, and that amount drew such abundant supplies to this country, that the same article is now selling at two shillings the ounce.

It may be truly observed that every nation under the sun is busily occupied in collecting products for our dispensaries and hospitals, in China, Tartary, Egypt, America, in the southern isle of the South Pacific, on the loftiest peak of the mighty Andes, in the most pestilential bunds of India, men are toiling for the inmates of the sick-room to aid that high and holy art whose noble aim is to win our bodies from penalty and pain.—*Household Words.*

Canada Medical Journal.

MONTREAL : OCTOBER, 1852.

Notice to Subscribers.—With this, the eight number, we issue accounts to all our subscribers who have not as yet paid for this volume of our Journal, and we earnestly hope that the amounts due, will be promptly remitted to us, as it is only by punctual payments that any publication can be kept up.

Since our last number was published, we have ascertained the views of many of the profession, in both Provinces, and the general opinion, appears to be in favour of *one* Licensing Board for both Provinces, a project which we have reason to believe will be strongly advocated by our Upper Canada contemporary. It is true, that such a plan as that now alluded to, for counteracting the mischief of so many universities in such a young country, will meet with opposition from some of those institutions that have held out to students the allurements of getting over an examination before the board, by the easy process of passing one before their own teachers, who of course attach most importance to those branches of science which they have lectured upon, and particularly to those departments of it to which they have directed the student's attention during the period of his pupillage. The notes of the *perennial* lectures, repeated some three or four times, *without any variety or addition* together with the assistance of an expert *grinder*, will get most students through the fiery ordeal. But if we have but one Licensing Board, it matters not how many institutions, granting Diplomas or Degrees we may have, the truly qualified and practically educated student, has nothing to fear, but he that has been crammed with the favorite points of his examiners, and who, in many cases, knows nothing else, will find it difficult to pass muster. Will any one tell us that the rejection of such a student will be an injury to the public, or will it be said that the discontinuance of such a method of medical instruction, is not a blessing. We shall not then have examples of M. D's, who have never bled a patient or who do not know how to tie a ligature upon an artery, because they had never seen either done whilst students. Moreover we shall have uniformity of Education throughout the Province, and this

seems impossible to attain under the present system. One university advertises its lectures for less than one half the amount demanded by another: in self defence, that other will lower the standard of examination and open its doors to the half educated student, or it will exercise its discretionary powers and dispense now and then, with the full measure of its requirements for the degree, or, as has been done, it will connive at the imperfect method of instruction adopted at some sympathising School, which acts as a feeder to it, and recognize tickets for lectures on three or four different branches of education delivered by one and the same person. It is in this way, that every emergency will be met, and there is no remedy for this and many other abuses, we have not now space to enumerate, but the establishment of *one Licensing Board and uniformity of Medical Education.*

MARINE HOSPITAL AT QUEBEC.

We have received a pamphlet from Dr. Marsden of Quebec, containing many charges of a serious nature against the management of the Marine Hospital at Quebec, and since its receipt, we notice that Messrs. Dunscombe of the Inspector General's Office, and Parent, the Assistant Secretary for Lower Canada, have been appointed Commissioners to investigate these charges. We are ignorant of the Medical qualifications of these gentlemen, and cannot be persuaded that they are the fittest persons to inquire into such charges as the following, which we quote from Dr. Marsden's pamphlet:—

“I had occasion as long ago as the 1st of March, 1851, to complain to the Commissioners for the second time, that a patient (a servant of my brother-in-law,) had died in the Hospital *from improper treatment*, and stated that I was prepared to prove my charges whenever the Commissioners chose to call upon me; but from that day to this, the only result, as far as my charges were concerned, has been an *exparte* examination of the *guilty parties*, (not their accusers) and the publication of a disgusting and false report, that would, from any other source than Parliament, have been treated as a libel. Whenever the portals of the Institution are opened to an impartial investigation, either by Parliament, or by an independent Commission, I shall be able and prepared to expose a few more of the professional delinquencies that have disgraced the management of the Institution for some time past, such as unnecessary operations, followed almost by immediate death!—death from improper treatment, and ignorance!! attempting dangerous and unnecessary operations, threatening life, by ignorant and unskilful persons!!!—commencing operations, which the operator was unable to complete; and rendering the sufferer worse than before!!!!—scald-

ing to death by hot baths, so that the skin has slipped off the body on lifting the living corpse out of the boiling water ! ! ! !—Dreadful and incredible as these things seem, **THEY ARE FACTS.** They have been reported to some of the Commissioners, who pretended not to believe them, but, *they have not dared to investigate them*, nor to call upon the parties who make these statements, (of whom I am one) for a confirmation of them.”

Prof. Valentine Mott, of New York, has recently been honored by an election, unanimously, as an Honorary Fellow of King's and Queen's College of Physicians, in Dublin, Ireland. This is a great honor—of which Prof. Mott is the twenty-seventh recipient since it was founded in 1667. He is the only American among the Honorary Fellows of that College. We rejoice at the honor conferred upon Professor Mott, by the King and Queen's College.

The Medical Profession of Dublin, including both physicians and surgeons, entertained Dr. Simpson, President of the College of Physicians, and Professor of Midwifery in the University of Edinburgh, at Salt-hill Hotel, on Friday last, the 20th of August, at a public dinner, when upwards of 40 of their body were present. Sir. Phillip Crampton, as senior member of the profession, occupied the chair, and Dr. Montgomery, as President of the King and Queen's College of Physicians, acted as vice-chairman. Dr. Retzies, Professor of Midwifery in Stockholm, and Dr. Lindwurm, of Munich, who were at the time visiting the Medical Institutions of Dublin, were invited guests on the occasion. This was, we believe, the first instance in which so high an honor was paid to any individual by the two branches of the profession conjointly, and by no one was it more merited. The discoverer of chloroform, so inestimable a boon to suffering humanity—a skilled physician, especially in that branch of the profession to which he has particularly devoted himself—an author, whose contributions to the science and practice of medicine are deservedly prized throughout the world—and a highly accomplished man of letters—Professor Simpson has earned for himself the friendship of those who know him, and the admiration of all. The members of the Medical Profession of Dublin have, we think, done well in showing that they know how to appreciate talent and devotion to the interests of their science, and, we think, that in the present instance they have done honor, not alone to Dr. Simpson, but to themselves.—*Saunders's News Letter.*

[We hope that this generous acknowledgment of his high attainments, will have the effect of smoothing down some of the severe remarks the

Professor has been in the habit of indulging in, when speaking of the contributions of the Dublin School of Obstetricians, and that his colleagues when speaking of Irish Surgeons and their scientific labours, will give them credit for recognizing real talent, and forgetting severe personalities, where an opportunity presents itself for paying a tribute of respect to the highly educated and accomplished practitioner.]

Dr. Mount.—Amongst the many blanks left in our Canadian Society by the attractions of the Australian *El Dorado*, few will be felt more keenly than that caused by the emigration of the above named gentleman. Dr. Mount has been long and favorably known to the community as a distinguished physician, a perfect gentleman in manners and habits, and a warm and sincere friend; uniting to an extensive acquaintance with his profession, those qualities which endear him to the social circle. We wish him every success in the Colony to which he proceeds, and congratulate the society amongst which he may settle, upon acquiring an experienced practitioner, and (from our own knowledge,) an eminently successful accoucheur.

REVIEW DEPARTMENT.—Owing to the great variety of Original Articles, we have had no room for Reviews in this number; we purpose in our next laying before our readers, our opinion of some excellent works that have recently been published.

The Atmospheric Breast Pump.—We have received from Messrs. S. J. Lyman & Co., a specimen of this very useful article, with the properties of which we have been for some time acquainted, having used one presented to a patient of ours, some months ago. It is the best, most easily worked, and cheapest, article of the kind yet invented, and we strongly recommend it to our country, as well as our city, brethren.

Notice to our French Canadian Subscribers.—We have to apologise for not having inserted any articles in the French Language in the Scientific Department of the last few numbers. This omission has been caused by the difficulty of making the proper postal arrangements to get our Foreign Exchanges. We have now, however, made such arrangements with our New York and London Agents, as will, in future, enable us to receive them regularly. We wish our Canadian Confrères would allow us to place their labors more frequently before the country in our pages—it is not our fault that more original articles in the French Language do not appear.

CANADA MEDICAL JOURNAL.

VOL. I.

MONTREAL: NOVEMBER, 1852.

No 9.

ORIGINAL COMMUNICATIONS.

ART. XLVI.—*Essai sur la nature et le traitement du Choléra Asiatique, basé sur l'autopsie et la clinique*, par L. F. CHAPERON, membre du Collège des Médecins et Chirurgiens, du Bas-Canada.

DIFFICULTÉS QU'OFFRE NATURELLEMENT LE SUJET.—Considérant l'importance du sujet à traiter et que certaines observations que je vais soumettre plus particulièrement à la faculté médicale, s'adressent à un corps aussi éclairé, renfermant une aussi grande somme de talents éminents; c'est avec crainte que je l'aborde, surtout lorsque je réfléchis qu'une multitude de ses membres les plus distingués, en ont fait l'objet de recherches assidues et minutieuses; ont mis en ressort tout ce que la science a pu mettre à leur disposition, sans avoir pu arriver à aucun résultat satisfaisant, établir rien de positif, ne recueillir à la fois, tous les matériaux propres à établir sur des bases certaines, le traitement du Choléra Asiatique, le fléau le plus terrible, le plus destructif qui ait jamais frappé l'humanité.

La rigidité des mesures sanitaires, la panique excessive, les occupations multipliées des hommes de l'art, et autres difficultés, sont autant d'obstacles, qui naturellement ont dû s'opposer à l'accomplissement des recherches d'impérieuse nécessité, dans le but de faire quelques découvertes utiles sous le rapport pathologique.

Elles n'étaient possibles que dans les Hôpitaux, qui se trouvaient le plus souvent surchargés d'une foule de malades requérant tous les instants de ceux qui furent chargés de leur administration. Il est donc à présumer, que les autopsies furent rares et pour la plupart, pratiquées sous des circonstances désavantageuses; qui d'ailleurs, lorsqu'il fut possible de se livrer avec quelque espoir de succès, à des recherches de ce genre, les apparences morbides sur les organes vitaux, le désordre général sur toute l'économie animale, dûrent nécessairement embarrasser ceux, qui les premiers, eurent le noble courage de les tenter.

Au milieu de la consternation et d'une panique universelle, la science,

vû l'existence des entraves précitées, ne pût venir en aide d'une manière efficace.

Le but que je me suis proposé, étant autant que possible de rendre mon travail d'une utilité pratique, je ne m'attacherai nullement à retracer la marche de cette épidémie ; énumérer ses ravages ; citer son apparition à diverses époques : je ne traiterai donc que brièvement des différentes considérations, qui ne se rattachent au sujet, que d'une manière secondaire.

Je n'ai pas la prétention de vouloir imposer un système de pathologie, relativement au traitement du Choléra Asiatique ; je ne m'arroe pas le droit d'une découverte scientifique. La pathologie que je vais proposer, est particulièrement et principalement l'œuvre, le fruit des recherches d'un membre de la faculté justement regretté. Il eut d'amples occasions ; ses recherches furent fréquentes et assidues ; il réunissait chez lui toutes les qualités morales pour le qualifier à retracer, à découvrir le siège et la nature de la maladie, et lui adapter un remède propice ; mais ses efforts échouèrent constamment en présence de certaines apparences morbides dont il ne pouvait se rendre raison, et qu'il considérait comme consécutives, tandis qu'elles étaient réellement primitives, comme je m'efforcerai de le prouver plus tard.

Je prends la liberté de remarquer, que les modifications que j'ai cru devoir adopter, résultent de l'existence bien constatée, de certains faits que je n'avais pu apprécier ; que j'ai eu occasion d'en constater la réalité, à plusieurs reprises ; que les observations cliniques qui me furent offertes de nouveau en 1851, confirment la pratique que j'ai adoptée alors ; en un mot, que la physiologie, la matière médicale et la chimie, expliquent certaines conditions anormales ; que la physiologie et la splanchnologie, rendent raison des faits invariablement présentés par l'autopsie si fréquemment pratiquée à l'Hôpital de Marine en 1834 : de là une pathologie que j'offre à la profession, espérant que dans un but philanthropique, elle voudra bien condescendre à en faire le sujet de recherches ultérieures.

Jusqu'à présent, le traitement du Choléra Asiatique ne paraît avoir été dirigé que contre des symptômes, ne tendant nullement à détruire la cause qui le détermine : quoique tous les efforts aient été tentés, dans le but de la découvrir.

Depuis que la pathologie a acquis le caractère d'une science précise, l'on reconnaît en médecine, l'avantage immense que possède ce dernier mode de traitement sur le premier, qui ne tend tout au plus qu'à mitiger les effets d'une cause latente.

Les efforts tendant à établir le traitement d'une maladie aussi des-

tructive que l'est le Choléra Asiatique, tous humbles qu'ils puissent être, devraient être libéralement encouragés par un public éclairé.

Le lecteur professionnel pourra peut-être croire que le traitement proposé, et qui fut invariablement suivi de succès inattendu, résulte de modifications des vues de Stevens, qui s'est acquis une juste célébrité, par ses découvertes importantes, suivies d'un succès sans parallèle, en traitant la fièvre jaune : mais non, quant au traitement du Choléra Asiatique, j'avais adopté certaines modifications d'après des vues particulières ; ce n'est que dans le cours de recherches liées au sujet, que j'ai découvert que ce célèbre médecin trouvant beaucoup d'analogie entre la fièvre jaune et le choléra asiatique, avait traité cette dernière maladie avec assez de succès.

Il ne portait son attention que sur les conditions chimiques du sang qui paraissent, à la vérité, semblables dans l'une et l'autre maladie, quoiqu'elles diffèrent essentiellement, quant à leur siège primitif et leurs symptômes qui paraissent primitifs dans l'une, et consécutifs dans l'autre ; leur caractère respectif présente des conditions absolument inverses.

Dans la fièvre jaune dont on attribue généralement l'origine à des miasmes exerçant une action spécifique, l'appareil respiratoire, circulatoire, le cerveau, la moëlle épinière paraissent simultanément affectés : L'irritation gastro-intestinale quoique très intense et dénotant une surexcitation du système nerveux en général, ne survient que secondairement, elle reçoit probablement un surcroît d'intensité par le contenu de l'estomac et des intestins lors de l'invasion de la maladie et qui par son contact peut alors comparativement irriter leur membrane muqueuse, dont la susceptibilité se trouve accrue sympathiquement par continuité des cordons nerveux formés par la réunion de nerfs émanant du cerveau et de la moëlle épinière, et qui forment ces entrelacements admirables, ces réseaux nerveux qui se distribuent aux différents viscères, pénètrent leur parenchyme et s'épanouissent sur leurs membranes musculeuses et séreuses ; de là, l'irritation gastro-intestinale, les sécrétions surabondantes et les évacuations excessives.

Dans cette maladie, l'influence nerveuse est plus active, vû qu'elle a lieu du centre à la circonférence, émanant d'un organe plus ou moins excité.

Dans le Choléra au contraire, la susceptibilité nerveuse extrêmement affaiblie, agit d'une manière positivement inverse.

Durant la fièvre jaune, le traitement du Dr. Stevens, quoique seulement dirigé contre les symptômes consécutifs, ne laissait pas que de remplir un but très utile, en calmant l'irritation gastro-intestinale, laissant le système en général, sous l'influence des symptômes primitifs, dont l'intensité après la disparition d'un irritant additionel, se calmait graduellement et finissait par disparaître.

Tout en appréciant les vues de Stevens, qui ne paraît pas, à ce que je sache, avoir émis aucune théorie relativement au Choléra Asiatique, le lecteur, en y faisant attention, se convaincra facilement, que mes vues ne sont nullement empruntées, et que le traitement que je propose, diffère du sien sous beaucoup de rapports ; mais vû qu'il est le premier qui ait par analogie, adapté un traitement alcalin au Choléra Asiatique, je ne pourrai m'exempter d'en faire une courte mention ci-après.

Il se sert d'une combinaison de sels neutres, dont le sedlitz forme partie ; son traitement est purement salin et réfrigérant.

Ayant des vues toutes particulières en traitant la fièvre jaune, il ne désirait en apparence, calmer l'irritation gastrique, que pour administrer plus facilement la combinaison de sels neutres qu'il prescrivait dans le traitement de cette maladie.

Il paraît, par analogie, avoir adopté le même traitement relativement au Choléra Asiatique, sans y apporter aucunes modifications notables.

Je donne une préférence absolue aux carbonates et à divers stimulants empruntés au règne végétal : le traitement que je propose, d'après certaines vues, est stimulant et anti-septique, ou végétal-alcalin. D'après les nombreuses épreuves qu'il a subies, il me paraît très efficace et semble confirmer les vues émises.

Je me flatte qu'il attirera la savante considération de la faculté, en général, qui saura le juger consciencieusement.

CAUSE PRÉDISPOSANTE OU ATMOSPHÉRIQUE.—Quoique très probable, peut-être constant, qu'un certain vice de l'atmosphère (soit défaut de quelqu'un de ses éléments constituants, ou des fluides qui y circulent habituellement à l'état normal ; soit manque d'électricité comme on a paru le croire en 1849) donne origine à une cause prédisposante, qui en agissant sur quelqu'un des systèmes de l'économie en particulier, ou sur la totalité du merveilleux ensemble, trouble leurs rapports, leur équilibre relatif et occasionne par un effet secondaire la maladie.

En supposant la possibilité de déterminer la nature de ce vice, ou défaut dans l'atmosphère, sera-t-il jamais donné à l'homme de pouvoir faire au delà de ce qui a été fait par les autorités civiles universellement, par les cordons sanitaires, par l'observance d'une stricte surveillance, d'une propreté soignée, en un mot, par toutes les mesures sanitaires, dans la vue d'empêcher que l'air ne s'imprégnât de miasmes déléterés ?

Puisque tous les moyens employés jusqu'à présent, pour empêcher l'ingression et la diffusion de cette maladie, ont été infructueux ; que le fléau a déjoué toutes les spéculations humaines sous ce rapport, il vaut peut-être mieux, et peut-être est-ce le seul moyen à notre portée, le seul qui nous soit laissé, de diriger les efforts de la science contre lui, afin de le détruire lorsqu'il a attaqué l'humanité dans son organisation.

Ceci ne détruit pas chez moi la conviction de l'utilité des mesures sanitaires ; bien au contraire, je suis convaincu qu'elles sont très propres à mitiger le type de la maladie, abrégé sa durée ; vû qu'elles tendent à nous procurer un air pur ; à nous laisser conséquemment sous la simple influence de ce vice ou défaut périodique, passager, purement épidémique, dont l'atmosphère se trouve inoculé, et qui n'agit que comme simple cause prédisposante.

Les registres du Lazaret de la Grosse-Isle, tendent à prouver que ce n'est pas une maladie d'importation, puisqu'ils ne mentionnent, en aucun temps, l'arrivée de cholériques parmi les passagers sur les vaisseaux venant le plus souvent, de ports infectés : entre autres, Waterford, Limerick, Sligo, Belfast, etc.

Loin de là, grands nombres de ces malheureux Emigrants, que la terreur avait chassés de leur sol natal, ainsi que l'équipage de plusieurs vaisseaux, vinrent contracter la maladie dans le port de Québec, et sur ses quais.

En outre, en 1834, 1849 et 1851 plusieurs cas se sont présentés sous un aspect grave, avant l'ouverture de la navigation.

Le fait bien avéré, que les nombreux employés dans les Hôpitaux de Québec, ceux surtout qui pratiquèrent les nombreuses ouvertures en 1834, échappèrent tous au fléau, tend également à prouver qu'il n'est pas contagieux.

Quoique l'on ait dit beaucoup, pour et contre sa nature contagieuse, je crois que l'on arrivera un jour aux conclusions suivantes : 1 ° que le Choléra n'est pas un virus atmosphérique, latent, ou importatif ; 2 ° qu'il n'est pas immédiatement contagieux ; 3 ° qu'il peut-être accidentel ; 4 ° que ce virus à la vérité, n'a jamais été que factice et supposé ? *

Il existe une cause atmosphérique probablement de nature atonique qui prédispose à la maladie, une cause excitante, étant la première qui agisse d'une manière sensible sur l'économie animale, outre les causes

* La couche atmosphérique à la surface de l'orbe terrestre, a pour ainsi dire, sa circulation, ses pérégrinations, ses habitudes et ses vicissitudes. Ne ressent-elle pas l'influence de la température, des climats, et des saisons ?

Les foyers miasmatiques ne l'affectent-ils pas d'une manière toute particulière et qui varie aussi selon la latitude, la localité et la saison ?

En un mot, l'air ne s'inocule-il pas pour ainsi dire d'une cause prédisposante aux maladies épidémiques dont la malignité s'accroît sensiblement dans une atmosphère circonscrite ou emprisonnée ?

Elles paraissent périodiquement, se suivent et se succèdent selon un ordre déterminé.

L'air et l'eau ont des rapports incessants : l'air circule plus librement et plus rapidement sur les grands fleuves et leurs principaux tributaires ; ce fait tend à expliquer la marche que le Choléra a paru suivre, dans certains pays.

L'air ne pourrait-il pas se trouver semblablement inoculé d'une cause prédisposant à cette épidémie ?

accidentelles, débilitantes, d'origine physique ou morale favorisant l'action des deux premières ; principalement la panique, qui par son rôle tristement célèbre, a souvent, pour ainsi dire, exterminé, ceux que le fléau paraissait avoir épargnés : Québec en a fourni des exemples frappants, entre autres, sont Mr. le J. F. et A. J. J., Ecr., N. P., qui succombèrent visiblement sous l'influence de cette seule cause !!! Leur détail raviverait des plaies non cicatrisées !

RECHERCHES EN 1834.—Lorsque le terrible fléau apparut pour la seconde fois à Québec, en 1834, la cité, son port et ses environs fournirent une quantité de malades.

Le conseil de ville, par une permission spéciale, put les placer dans l'Hôpital de marine, sous les soins éclairés du Dr. Tessier.

Conformément à un ordre spécial du comité de santé, les victimes qui succombèrent au fléau, devaient être inhumées peu d'heures après la mort. Autant qu'il fut possible de le faire, elles furent le sujet de recherches anatomiques minutieuses, et dont je fus témoin oculaire.

POST-MORTEM.—Le corps extérieurement : 1° peau bleuâtre, recouverte par une transpiration abondante et visqueuses ; 2° rides prononcées ; 3° ongles bleus ; 4° les yeux calés dans leurs orbites ; 5° traces générales d'émaciation rapide.

Cerveau : 1° congestion, ou turgescence, sans traces d'inflammation, telle que dans les cas de mort de maladies siégeant ailleurs.

Cavité thoracique : 1° nul indice d'inflammation ; 2° congestion des poumons, par un sang épais, et de couleur plus foncée que ne l'est ordinairement le sang veineux ; 3° les plèvres, le péricarde et le cœur, à l'état normal, mais comme les méninges privées de sérosité ; 4° les cavités du cœur, du côté droit, remplies du même sang.

Abdomen : 1° péritoine généralement blanchâtre ; 2° le parenchyme du foie, de la rate et du pancréas, paraissait présenter une moindre quantité de sang qu'à l'ordinaire ; 3° vessie toujours vide, manquant peut-être de mucosité à sa surface interne ; 4° la muqueuse de l'estomac toujours enflammée, soulevée, pulpeuse, tachetée et très molle ; 5° la tunique musculaire injectée ; 6° mêmes apparences sur les intestins ; 7° plénitude de la vésicule biliaire ; 8° retrécissement, oblitération spasmodique des canaux pancréatiques et cholédoque commun ; 9° absence de bile, dans le duodénum ou aucune partie du tube intestinal ; 10° les substances alimentaires que contenait invariablement l'estomac, avaient une odeur très sure et désagréable ; n'avaient subi aucun des changements ordinaire : pas d'homogénéité ; il était facile d'isoler les diverses substances les unes des autres : pas de chymification ; 11° chez ceux qui étaient succombés dans cet état d'excitation ou fièvre consécutive, le bol alimentaire, de même nature que dans le cas

précédent, avait franchi le pylore et se rencontrait à divers endroits du tube intestinal, le plus souvent dans les petits intestins ; 12 ° quelquefois gangrène des intestins.

SYMPTOMES DITS PRÉMONITEURS.—1 ° poids, malaise à l'épigastre, se propageant graduellement à l'abdomen ; 2 ° diarrhée féculente dans le principe et tendant à revêtir le caractère séreux ; 3 ° pesanteur de tête, quelquefois douleur à sa partie antérieure ; 4 ° oppression à la partie inférieure du thorax ; 5 ° éructations acides, et autres symptômes de dyspepsie.

SYMPTOMES CARACTÉRISTIQUES—1^{RE} PÉRIODE.—1 ° Diarrhée séreuse ; 2 ° vomissement séreux ; 3 ° crampes ; 4 ° une soif ardente ne tarde pas à survenir. Généralement, ces deux premiers symptômes se présentent simultanément, et le troisième ne tarde pas à paraître ; mais il arrive très souvent que les deux premiers se succèdent, l'un des deux précédant indifféremment l'autre. Quant au troisième, quelquefois la mort arrive sans sa présence ; dans quelques cas, le vomissement, a-t-on dit, ne survient pas.

Malheureusement faute d'avoir considéré l'un des premiers symptômes, comme indice certain, cette maladie insidieuse (vû que dans son début, elle se manifeste sans grande douleur) n'ayant pas reçu le nom qu'elle méritait, sous peu d'heures, s'assurait de sa proie : le malade succombait en attendant les crampes.

On a prétendu, que dans quelques cas, la mort a eu lieu, en l'absence d'aucun symptôme caractéristique : il y a lieu de croire qu'alors les symptômes prémoniteurs déterminaient une forte congestion cérébrale, ou apoplexie : Ces cas très rares, peuvent être considérés comme exceptionnels.

AGGRAVATION DES SYMPTOMES PRÉCITÉS OU 2^{ME} PÉRIODE.—1 ° douleur à l'épigastre et à l'abdomen, plus ou moins intense ; 2 ° haleine froide ; 3 ° froideur générale ; 4 ° transpiration froide et abondante ; 5 ° consternation extrême ; 6 ° mouvements alternatifs, d'un côté à l'autre ; 7 ° respiration laborieuse ; 8 ° voix éteinte ; 9 ° yeux profonds, dans leurs orbites, altération de tous les traits et de tout le corps ; cyanose ; 10 ° cessation du pouls ; 11 ° perte de la vue et de l'entendement précédent la mort.

3^{ME} PÉRIODE.—1 ° le pouls de 80 à 90, est mou ; 2 ° douleur de tête ; 3 ° torpeur et congestion cérébrales ; le visage se colore de plus en plus ; la conjonctive s'injecte ; 4 ° la langue, les alvéoles et les dents se recouvrent d'une croute brune ; 5 ° l'haleine est chaude et fétide. Cette transition à l'état fébrile, offre beaucoup d'analogie à un ~~typhus~~ ^{typhus} à l'état congestif, approchant de l'état comateux.

— ON NE DOIT PAS À CROIRE QU'IL N'EST PAS IMMÉDIATEMENT CON-

TAGIEUX.—Si cette maladie était de nature fébrile et contagieuse, fesant son ingression dans le système à travers l'appareil respiratoire, la fièvre ne tarderait pas à se manifester par les symptômes les plus graves : chaleur intense de la peau et de l'haleine, accélération et trouble de la respiration et de la circulation, délire, etc. ; car une maladie dont les symptômes secondaires seraient aussi terribles, devrait nécessairement être précédée d'un désordre immense des organes qu'elle affecterait primitivement :

Ferait-elle donc exception à ce qui arrive dans les maladies fébriles ?

Les fièvres miasmatiques, endémiques à diverses latitudes, avec leur foyer alimentaire et leur atmosphère qu'elles ne dépassent que très rarement ; la fièvre continue avec sa cause accidentelle, formant le plus souvent un foyer pestilentiel qui en détermine le type ; les fièvres éruptives avec leurs caractères et leurs sièges particuliers, leur sphère d'action spécifique ; et toutes autres maladies fébriles qui surgissent dans l'économie animale ; primitivement ou consécutivement, spécifiquement ou accidentellement (soit que la cause qui les détermine, agisse du centre à la périphérie, ou *vice versa*) présentent invariablement des caractères généraux, paraissent également, dès leur début, affecter les organes vitaux, avec plus ou moins d'intensité, quoique d'une manière particulière à chacune d'elles.

Dans la fièvre jaune, quoique son siège primitif ne soit pas précisément déterminé, les premiers symptômes paraissent caractériser une maladie affectant spécifiquement la totalité du système nerveux : il y a surexcitation sympathique des viscères thoraciques et abdominaux, principalement du foie, dont la sécrétion paraît démesurément augmentée, etc. ; aussi dès le début, la fièvre est-elle maligne et intense ?

Rien d'analogue durant la première et seconde période du Choléra, sous sa forme la plus grave ; car les symptômes caractéristiques, à l'exception des crampes, se développent et ont amplement le temps de mettre la vie en danger avant que, le plus souvent, le patient éprouve de la douleur ou ressente le danger. C'est ce qui rend cette maladie aussi fallacieuse et tend à la rendre fatale.

Ce n'est que durant la 3^{me} période, ou la fièvre consécutive, que les symptômes fébriles se manifestent et avec plus ou moins d'intensité.

Comme toutes les maladies qui deviennent contagieuses, directement ou indirectement, lorsqu'elles sont d'un certain type, qu'elles ont acquis un certain degré de malignité, de putridité, assez facile à reconnaître, de même que la propriété de se transmettre par la même voie, et de la même manière que la maladie primitive, en affectant, par exemple, la même muqueuse ; ce ne peut-être qu'alors, je présume, que le Choléra

peut devenir contagieux, ou se transmettre par les émanations. Aussi les cas qui ont pu porter à lui supposer une nature contagieuse, sont-ils très rares, et leur sphère d'action est-elle fort limitée ?

Même en pareil cas, ne serait-il pas raisonnable de supposer, qu'il ne peut se transmettre qu'en agissant spécifiquement et directement sur la muqueuse buccale, et par sympathie et contiguité sur celle de l'estomac ?

Si l'on convient que la maladie ne se caractérise visiblement, que par la diarrhée, le vomissement et les crampes, comment donc, pour être consistant, pourrait-on nier que l'estomac ne se trouve primitivement, affecté ?

Lorsqu'il n'existe pas sous une forme sporadique ou épidémique, comment se fait-il que l'on en rencontre quelques cas isolés, de nature grave, durant la saison froide, plusieurs mois après la clôture de la navigation ?

Mad. Godbout éprouve tous les symptômes caractéristiques de la première période, sous une forme très grave, le 15 de Mai 1849, et le 22 d'Avril 1851 ; un nommé Bolduc est atteint vers le même temps.

L'enfant de Mr. Jh. Flemming dans le cours de Janvier 1852, était dans un état de collapse fort avancé, absence de pouls radial, cyanose, etc. S. Akerley l'appelle alors Choléra accidentel, et en attribue la cause excitante à des comestibles qui se digèrent lentement et irritent.

Quelques médecins, en Russie, ne purent propager la maladie par inoculation, ou en goûtant les matières vomies,

Finel s'inocule impurement avec le sang et le mucus intestinal, recueilli sur le cadavre : il considère cette maladie comme affectant primitivement le ganglion du grand sympathique, et propose de l'appeler trisplanchnie.

Il y a plusieurs années, un écrivain dans le Foreign-Quarterly-Review, relativement à ce sujet dit : " Que l'énergie vitale des nerfs qui se distribuent aux organes de la respiration, de la circulation, et des sécrétions est affaiblie ou détruite comme paraissent l'indiquer les symptômes qui constituent la maladie".....

Les maladies des intestins, reconnues comme maladies primitives, quoique provenant d'irritation mécanique et accidentelle, sur leur membrane muqueuse, ne peuvent-être essentiellement de nature fébrile et contagieuse : de cette opinion, Sydenham, Willis et autres ; mais lorsque cette irritation, comme toute autre, se maintient pendant un certain tems, elle occasionne une fièvre continue, qui peut acquérir un degré de malignité suffisant pour la rendre contagieuse, capable d'affecter pareillement ceux qui se trouvent durant un certain tems, exposés à ses émanations, etc., probablement par une action spécifique sur la même

membrane muqueuse, la prédisposant ainsi à se trouver comparative-ment irritée par un agent, qui dans les cas ordinaires, n'aurait nul effet.

La Dysenterie simple, très certainement, n'est pas contagieuse, mais lorsqu'elle se complique de fièvre continue elle l'est fortement.

Le Dr. Cheyne, de Dublin, a incontestablement établi ce principe et dit : " que lorsque la Dysenterie est accompagnée de fièvre avec inter-
" mission, il ne s'est jamais présenté un cas où elle ait passé à une
" seconde personne, mais qu'il en est autrement lorsque cette fièvre ac-
" quiert un type continu." Ceci forme donc, de fait, une exception provenant d'une déviation de la maladie relativement à sa marche ordinaire...

Le Choléra peut semblablement devenir contagieux pendant la troisième période ; mais comme l'a démontré l'expérience, il n'acquiert que très rarement ce caractère pestilentiel, et alors sa sphère d'action est tellement limitée, qu'il ne s'est jamais offert un exemple où il ait affectée une quatrième personne.

Il faut de nouveau remarquer que dans le Choléra, même les symptômes réputés caractéristiques, (c'est-à-dire ceux qui font suite aux symptômes prémoniteurs, qui par eux-mêmes, ne dénotent qu'un simple désordre gastrique) ne sont nullement d'un type fébrile, et que ce que l'on appelle troisième période de la maladie, n'est de fait, qu'une dégénérescence de la maladie primitive, occasionnée par une action lente et continue, sur la membrane muqueuse gastro-intestinale.

En somme, une membrane muqueuse quelconque, devenue primitivement ou consécutivement le siège d'une maladie, qui après un certain temps a acquis un type fébrile de certaine malignité, peut acquérir la propriété de reproduire la même maladie sur une autre muqueuse de la même espèce ; et la même règle peut s'appliquer à d'autres tissus.

CAUSE EXCITANTE, OU THEORIE PROPOSÉE—Ne pourrait-on pas supposer avec vraisemblance, que par une action atonique dont la nature demeurera longtemps ignorée, les injesta qui parfois requièrent de l'estomac un travail relativement disproportionné, ou qui ne rencontrant pas les sucs gastriques en quantité suffisante et de qualité requise, pour effectuer leur solution, ils ne se trouvent à peu près soumis qu'à l'action lente de leur propre décomposition ; que par cet état anormal, et leur présence trop prolongée dans l'estomac, ils constituent une masse qui devient de plus en plus irritante, affecte la membrane muqueuse, y occasionne d'abord une forte dénomination des fluides qui s'y exhalent habituellement ; ensuite, par l'action continue et pressante de cette source d'irritation, non seulement cette exhalation dépasse les bornes d'une sécrétion désordonnée, mais elle fait bientôt place à une inflammation active de

la muqueuse et qui plus tard atteint la tunique musculaire : de là détermination extraordinaire des fluides par toute l'étendue du tube digestif, privant rapidement le sang de sa partie fluide ou séreuse ; de là les selles et les vomissements séreux ; les crampes ; prostration rapide, perte de calorique ; décarbonisation de plus en plus imparfaite ?

Ce qui précède, paraît me rendre raison des symptômes prémoniteurs et caractéristiques ; et d'après l'ordre que je leur assigne, en les indiquant par des chiffres.

Ce quatrième des symptômes prémoniteurs, n'est que consécutif ; quoique chez certains individus, sous certaines circonstances, il puisse occasionner une métastase fatale, par elle-même, par son action immédiate sur le cerveau, y déterminant des symptômes apoplectiques.

Un pareil accident, eu d'ailleurs égard à la même cause excitante, doit se présenter plus fréquemment durant l'existence de l'épidémie, que dans tout autre tems.

Les mesures diététiques et hygiéniques, si fortement recommandées alors, ne prouvent-elles pas surtout que d'un accord commun, on est généralement porté à croire, que dans cette maladie, l'estomac se trouve primitivement affecté.

Cette masse irritante, essentiellement, n'est pas toujours la même : elle sera plus ou moins irritante, et variera selon la qualité et la quantité des comestibles : de la variété quant aux symptômes et quant à l'intensité de la maladie ? *

Je me rappelle (et Dr.-G. M. Douglass a probablement le cas frais dans sa mémoire), qu'en 1838, deux enfants nouvellement décédés, à bord d'un vaisseau arrivant à la Grosse-Isle, furent débarqués pour être inhumés. Le dernier de ces enfants, était le quatrième ou cinquième qui était succombé à une maladie, en apparence toujours la même : il n'y eut pas de malades durant la traversée ; les autres passagers étaient en bonne santé.

Ceci parut extraordinaire : similitude parfaite quant aux symptômes dans tous les cas ; vomissement et diarrhée de nature séreuse ; mouvements convulsifs ; altération extrême des traits du visage ; émaciation rapide ; tout portait au soupçon ; le monde à bord du vaisseau, les parents exceptés, attribuèrent la mort à l'effet d'un poison corrosif.

* Durant l'existence de l'épidémie, il nous arrive fréquemment de rencontrer de ces maladies intestinales, qui probablement doivent leur origine à une modification de la cause qui détermine le Choléra sous d'autres circonstances. Les inješta, alors parcourent promptement l'étendue du tube digestif, le laissent dans un état d'irritation tenace : Ce sont des cas de diarrhoea, lienterica ou crapulosa, et dysenteria. Elles ne se voient que très rarement à la suite du Choléra ; elles n'ont lieu alors que chez ces patients difficiles à tenir dans les bornes d'une diète convenable.

L'autopsie le prouva ; ce fut l'opinion du docteur. L'un avait environ 5, et l'autre 7 ans.

L'estomac de chacun d'eux ne contenait aucun fluide : nous rencontrâmes une petite masse fortement comprimée par les parois de l'estomac qui la recouvrait exactement, du côté de l'orifice pylorique ; elle était de la grosseur d'un œuf de poule, blanchâtre et sèche ; on remarquait des stries verdâtres sur les fissures et dans les interstices qu'elle présentait ; son odeur était très acide ; elle ressemblait sous le rapport de la consistance et de toutes les apparences, à du lait égouté, ou du fromage, deséché ou gâté.

En effet les pauvres parents, dans un but très louable, avaient adopté des moyens, pour pouvoir fournir du lait à leurs chers enfants durant la traversée.

Ne pourrions-nous pas considérer ces deux cas comme étant de Choléra accidentel ?

Dans trois cas d'empoisonnement par inadvertance, j'ai été frappé de la similitude, de l'analogie qu'il y a entre un cas de Choléra, à sa première période, et un cas d'empoisonnement par le tartre émétique ; exception faite, que dans le premier cas, l'irritant repose sur un estomac sain, à son maximum d'intensité ; que dans le second, l'irritant n'acquiert son intensité que graduellement, durant un séjour plus ou moins long : le poison et la maladie croissent simultanément. Il y a donc atonie, avant que le poison ait atteint son maximum : de là disparité quant aux suites.

Ces faits divers confirment chez moi, l'idée que faute de chymification, soit par atonie ou disproportion relative des éléments constituant les sucs gastriques, le bol alimentaire sous l'action inhérente de sa propre décomposition, agit alors comme un poison.

Il est constant que sur les victimes succombées à l'épidémie, l'acide paraît prédominer avec excès et sur la muqueuse et dans les inješta. Kersmann remarquant la présence d'une certaine quantité d'acide acétique dans le tube intestinal, suppose que le sang en a perdu une quantité équivalente : le sang ne le contient pas ; l'effet est ici confondu pour la cause.

Durant l'existence d'une diarrhée provenant d'une digestion imparfaite, ne se forme-t-il pas souvent sur l'estomac, une surabondance d'acide ; ne l'observe-t-on pas sensiblement dans les excréments ?

Lorsqu'après l'usage de comestibles dont le travail de l'estomac ne peut opérer la solution, la digestion se trouvant absolument supprimée, serait-il donc étonnant que l'acide se formât sur l'estomac, par voie directe ou indirecte, encore en plus grande abondance, et avec un dé-

gré d'acidité assez développé pour irriter fortement par lui-même, la muqueuse gastro-intestinale, en parcourant sa surface.

Les effets combinés de cet acide, et de la masse alimentaire, devant inévitablement varier, peuvent affecter, tantôt à la manière d'un irritant simple, tantôt comme poison acro-narcotique.

Cette maladie a aussi ses caractères généraux ; mais elle offre aussi des variations, des nuances et des complications.

Les symptômes de la troisième période, paraissent caractériser une inflammation simple et continue de la membrane muqueuse, entretenue probablement par la présence de la cause excitante, qui aura subi quelque modification, après avoir franchi le pylore : ou peut-être, résulte-t-elle d'une diète d'abord trop copieuse après la cessation des symptômes de la deuxième période ? D'ailleurs, ne doit-on pas aussi considérer la maladie que comme fièvre d'irritation ou consécutive, précédée de réaction et de restauration partielle des sécrétions ?

L'estomac et les organes sécréteurs recevant leurs nerfs d'une source commune (les divers plexus du par vagum), la suppression des sécrétions ne serait-elle pas plutôt coïncidente que consécutive, c'est-à-dire isochrone à l'action spasmodique généralement ; résulterait-elle de la contraction spasmodique des parois des conduits excréteurs, ?

Quant à celle de l'urine, ne pourrait-on pas d'ailleurs inférer que le sang ayant perdu considérablement par les évacuations excessives, ne laisse pour un tems, rien à éliminer ?

La précision de ces faits divers ne peut d'ailleurs affecter la pratique d'accord avec la théorie proposée. Il est de fait notoire, qu'avec la réaction, reparaissent les sécrétions : l'équilibre se rétablit, l'ordre renaît ; tout fonctionne dans l'économie, selon l'ordre voulu.

Cet heureux changement ne peut avoir lieu que lorsque la masse irritante a disparu ; ou qu'elle a du moins perdu ses qualités irritantes, lesquelles déterminent et maintiennent la contraction spasmodique de l'orifice pylorique, qui ne peut conséquemment lui livrer passage, et ne permet que l'égression des liquides tout au plus.

Cette contraction probablement analogue à celle des sphincters de l'anus, dans la dysenterie, peut-elle expliquer, rendre raison du vomissement sérieux, par la contraction anologue, du sphincter de l'œsophage et du pylore qui auraient lieu simultanément ?

Ce vomissement sérieux n'avait lieu qu'après des efforts pénibles ; et nonobstant, l'autopsie, sur le corps des malheureuses victimes, constatait le fait toujours étonnant de la présence dans l'estomac, de comestibles non convertis en chyme.

* L'acide acétique résulte souvent de la fermentation spontanée de substances végétales et animales.

Ce fait sera toujours frais dans la mémoire de ceux qui en furent les témoins.

Les symptômes prémoniteurs ainsi que les symptômes caractéristiques de la première période, paraissent prouver incontestablement, que l'estomac est le siège primitif de cette maladie, et que la plupart des symptômes ne sont que consécutifs.

La respiration ne s'embarasse que lorsque la seconde période est fort avancée ; la congestion cérébrale ne se fait jamais remarquer durant la première et la seconde période, c'est-à-dire, une congestion purement locale, indépendante de cette congestion générale, qui caractérise la seconde période, dans un état avancé ; ce n'est que dans des cas exceptionnels, rares, chez des individus qui y sont naturellement prédisposés, que dans le début de la maladie, elle peut avoir lieu, par métastase sur le cerveau.

D'ailleurs, si la congestion existait primitivement, ne serait-elle pas accompagnée de ses symptômes concomitants ? Quoique provenant de la même cause, dès son existence première, n'occasionnerait-elle pas à la vérité, une maladie de genre différent ?

J'appellerai ces cas exceptionnels.

(A Continuer.)

ART. XLVII.—*Cases in Practical Medicine.* BY A. H. DAVID, M. D., *Physician to St. Patrick's Hospital, &c., &c.*

Diarrhœa successfully treated by Sulphuric Acid.—Although Sulphuric Acid was recommended in passive diarrhœa, by the late Anthony Todd Thompson, in the Edition of his Dispensatory, published in 1837. I believe attention was only directed to it some twelve or fifteen months ago, by a writer in one of the Medical Periodicals ; and according to received notions, no remedy would be less likely to check an attack of this disease, for the state of the tongue the sour taste in the mouth, and the acid matters rejected from the stomach, would seem to contra-indicate its use, and few practitioners venture to have recourse to any other remedies than the old ones of calomel and opium, or astringents and absorbents ; which correct the acidity of the primæ viæ and improve the character of the secretions. I am induced to relate a few cases cured by this remedy, as I believe it will be found to be very efficacious in the treatment of this often troublesome disease.

Case 1st. James McCrae, aged 42, labourer, after exposure to wet, was attacked during the night of 22d June, with diarrhœa, succeeded after a time with severe griping pains in his bowels, accompanied with

vomiting. Early in the morning, he procured from a neighbouring apothecary shop, an ounce of castor oil, with 30 drops of laudanum, which he retained upwards of half an hour, when it was vomited up with a large quantity of very acid liquid, from which he felt much relieved for a few hours; when towards the middle of the day, all the symptoms having returned, with the same violence as in the morning, he came under my care, and I resolved to try the effect of Sulphuric Acid. I therefore, ordered a mixture containing ℥ss. of diluted Sulphuric Acid, with ℥viiss. of water. ℥i to be taken every two hours. The first dose was vomited up within five minutes, but on taking the second which he did immediately on the rejection of the first, he had no return either of vomiting or griping pains, and the next dose checked the purging; he had no recurrence of it from that time, and the following day returned to his work as well as ever.

Case 2nd. Occurred a few days after the above, and was that of a lady who has just recovered from her accouchment, when she was attacked with nearly the same symptoms as the previous case; and was, when I first saw her, much exhausted from the enormous evacuations. I immediately ordered the same medicine, and two doses checked all the symptoms, although she took a third dose, as a matter of precaution, and now speaks to all her friends, of the acid mixture, as a specific in diarrhœa.

Cases 3rd and 4th. Were in children—one, two years old, and the other five; both were cured in two days, with the Sulphuric Acid, of course in much smaller doses, and sweetened at the time of administering it. I shall not detail many other cases, that have fallen under my care since these, but they have been of sufficient number to give me full opportunities of testing the value of Sulphuric Acid in diarrhœa, and from the experience I have had in its use, I can confidently speak of its curative power in such cases.

On the use of Diuretics externally.—Dr. Christison, of Edinburgh, having called the attention of the profession to the effects of external diuretics in dropsy. I determined to try them in the first cases that should present themselves to me, two of which did shortly after I read his remarks in the Edinburgh Monthly Journal, of November last, which I will detail in as few words as possible: Elizabeth Connor, aged 26, whose case I will mention, when relating cases of acute Rheumatism, treated by Lime Juice, after recovery from a severe attack of acute Rheumatism, suddenly complained of enlargement of her abdomen; fluctuation was very evident; there appeared to be no structural cause for the dropsy, and accordingly I prescribed the formula as recommended by Dr. Christison. Equal parts of tinctures of digitalis, squills

and soap, two drachms of which compound was to be rubbed into the abdomen, three times a day; in less than three days, an increased quantity of urine was passed, which by the fifth day had become nearly double the quantity that it was on the third; she continued to discharge the same large quantity up to the tenth day, when the whole dropsical effusion had disappeared, but the liniment was still continued for two or three days longer; and as soon as the liniment was discontinued, the urine diminished in quantity, but she had quite recovered. The other case was that of a woman who had been labouring under an attack of Dropsy, for months before she came under my care, and was much exhausted from the active treatment which had been used. Digitalis, Elaterium, Taraxacum, and various other remedies had been tried by the Medical men, who first had charge of this case without affording any relief. She suffered much from irregularity of the bowels. For several days, she would have diarrhoea, then for several, her bowels would be constipated—to correct this condition, I gave two compound Rhubarb Pills, every night at bed time—ordered her to drink 2 oz. of gin, three times a day, and also to rub ℥ii of the Diuretic Liniment, well into her abdomen three times a day. The second day, the discharge of urine began to be increased in quantity, and continued increasing until it reached over 6 quarts daily—the size of the abdomen diminished in proportion to the discharge of urine, and she gradually improved, and in about a fortnight, ceased her medicines, as she was so much relieved—although I advised her to continue them, which she would not do, as she was going into the country for a couple of months. She returned home, after an absence of six weeks, with the effusion and consequent sufferings as great as ever, and this time the liniment failed—I was compelled to have recourse to paracentesis—and drew 27½ quarts from her, but she only survived four days—no post mortem was allowed, but there is no doubt, that her ascites depended upon lesion of the liver.

These are the only two cases, in which I have had an opportunity of trying diuretics externally, but from the effects produced, am satisfied they possess a manifest superiority over their internal use, as they can be employed in all states of the system without causing any general or local disturbance, even if they do not do any good.

(To be continued.)

ART. XLVIII.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University M'Gill College, &c.

(Continued from page 468.)

WHAT has just been remarked as to the convictions and usages of the Hebrew people with reference to the Prohibition of Blood, mainly applies to their abstinence from the flesh of such animals as are pronounced by the Scriptures and their ritual code to be טמא (tameh) unclean, אסור (assur) prohibited, or טרפה (terefa) torn. As will be presently seen, their traditions and authoritative writing ascribe moral, as well as hygienic, reasons for the Mosaic distinction of animals, and for the institution of those directions and enactments which lead them to reject as impure and unhealthy, such species of animal food as are commonly and unhesitatingly received by other nations, as ordinary and acceptable articles of diet. We have already made slight allusion to the fact, that as early as the days of Noah, a distinction of "clean beasts" and "beasts which are not clean" * was made and known. But we shall not stop now to discuss at all that very debatable question, whether the distinction of animals here referred to, is identical with that made in Leviticus, † and if so, being known and observed, equally

* "A remarkable instance of circumlocution," says Raphall, "cited as a proof of the extreme purity of mind of the sacred author, who uses these three words to avoid saying טמא (tameah) which in the Hebrew, does not simply express *the negation of clean*, as do the corresponding negatives in other language, viz: the Greek *akathartos*, the Latin *impurus*, the French *immonde*, the Spanish *immundo*, the Italian *immondo*, the German *unrein*, the Sweedish *oreen*, the Danish *orehn*, the English *unclean*, the Polish *nieczyste*, &c., but has a positive meaning, the counter-sense of טהור (tehorah) *clean*, and the extreme counter-sense of קדוש (kadosh) *holy*; and denotes a moral as well as physical state, which in any other language, we want an analogous single word to express."

† We learn that Noah † "took of every clean beast and of every clean fowl, and offered burnt offerings on the altar." This circumstance has much to do with the origin of the opinion respecting the use and meaning of the term "clean," as applied thus early to animals, though it would seem to furnish a powerful argument against the assumption that it refers to such animals only as were used for sacrifices; since from this passage we are almost obliged to conclude that the distinction was known to Noah, before he made his sacrifice, for which he *selected*. Philipson (Apud De Sola and Raphall's Translation of the Scriptures) seems to incline to this opinion, when he says: "It is natural to make a distinction between animals proper to be offered as a sacrifice to the Deity, and such as are improper for that purpose, including all that are carnivorous. This distinction we find established among all ancient nations."

with the prohibition to eat blood, by the Noachidæ,—whether these two laws can now lay claim to other than Jewish attention and observance;—whether the terms “clean” and “unclean” refer simply and respectively to those animals which were used or rejected for sacrifices or whether, as Jahn seems to think * the distinction only conveys that before the deluge, the flesh of animals was converted into food;—these being perhaps purely theological questions, which, however interesting, we may not stop here, to entertain.† We merely remind our readers that in addition to this distinction, a further one is made (ch. viii, v. 20,) with reference to fowls, and will proceed with them to the eleventh chapter of Leviticus where we find not only general rules of discrimination laid down, but also a catalogue given of various oviparous and viviparous creatures, forbidden to Israel throughout their generations. This chapter we propose to examine at length, availing ourself of such expositions and illustrations as, in the first place, the Hebrews themselves afford us; and secondly, of such as are supplied us by Christian commentators. And in this course, our attention will be necessarily directed among others to the following important points:—

First, The general directions for discrimination supplied;

Secondly, The nomenclature of the animals and their nature; and

Thirdly, Their prohibition; having reference to authority and reason.

The chapter commences with the law of discrimination respecting beasts. (Verse 1) “The Eternal spake unto Moses and unto Aaron saying unto them, V. 2. Speak unto the children of Israel saying, ‘These are the beasts ‡ which ye may eat from [among] all the beasts that are on the earth. V. 3. Whatever parteth the hoof and is cloven footed *and* cheweth the cud among the beasts, that may ye eat. V. 4. Nevertheless these may ye not eat, of them that chew the cud or of them that divide the hoof; the camel, &c.” Here follows an enumeration of various beasts to be noticed hereafter; we proceed to the 9th verse which contains the distinctive signs of permitted fishes. “These may ye eat of all that are in the waters; whatsoever hath fins and scales

* See his “Biblical Archæology” § 136, p. 147, Ed. Andover, 1827.

† Perhaps Rashi’s gloss on Gen. vii, 2, may be considered as enunciatory of Jewish tradition and opinion on this question. On the words “of all clean beasts,” he says, *העבודה להזות טהורה לישראל למדנו שלמדנו מה תורה* “That is, which are hereafter to be considered clean by all Israel. Hence we learn, that the Eternal taught the law to Noah.” i. e. anticipated to him a subsequent revelation to Moses.

‡ From the wording of this text, which is strictly in the present tense, singular number, and means literally, “This is the living creature” or beast, Rashi says that Moses exhibited to the people all the various creatures he mentions.

in the waters, in the sea and in the rivers, them may ye eat. V. 10. And all that have not fins nor scales in the seas and in the rivers, of all that move in the waters, and of any living thing which is in the waters; they shall be an abomination unto you." This much of the distinctive signs of permitted and prohibited fishes. For birds there are no distinctive signs given; but we are told, V. 20, "all fowls that creep going upon *all* four, shall be an abomination unto you. Yet, these may ye eat, of every flying, creeping thing that goeth upon *all* four which have legs above their feet to leap withal upon the earth; even these of them ye may eat, the locust, &c., V. 23. But all other flying, creeping things, which have four feet *shall be* an abomination unto you." In verse 27, we find further that, "whosoever goeth upon his paws among all manner of beasts that go on *all* four, those are unclean unto you, &c." Such are the general rules for discrimination, supplied us by the Scriptures. And before giving a closer attention to them, it becomes us to admit with Fleury, that it was not peculiar to the Hebrews, to abstain from certain animals out of a religious principle, for the neighbouring people did the same. Neither the Syrians nor the Egyptians eat any fish; and some have thought it was superstition, that made the ancient Greeks not eat it. The Egyptians of Thebes, would eat no mutton, because they worshipped Ammon under the shape of a ram,* but they killed goats. In other places, they abstained from goats flesh, and sacrificed sheep. The Egyptian priests used no meat nor drink imported from foreign countries,† and as to the product of their own, besides fish, they abstained from beasts that have a round foot, or divided into several toes, or that have no horns, and birds that live upon flesh. Many would eat nothing that had life; and in the times of their purification, they would not touch so much as eggs, herbs, or garden stuff. None of the Egyptians would eat beans.‡ They accounted swine unclean; whoever touched one, though in passing by, washed himself and his clothes. Socrates, in his commonwealth, reckons eating swine's flesh among the superfluous things introduced by luxury.§ Every one knows that the Indian Brahmins, still, neither eat nor kill any sort of animal; and it is certain they have not done it for more than two thousand years.

But if there be nothing peculiar in the Israelites, at the command of Moses, abstaining from the flesh of certain animals from religious motives—there is yet that which we shall find original, wise and salutary in this

* Herod. ii.

† Porphy. Abstin. iv.

‡ Herod. ii.

§ Plato ii Rep.

Mosaic prohibition. We ought not to commence any such investigation, however, until, in accordance with the advice which the illustrious Mendelssohn gives, we first fix the correct sense of some of the most important terms connected with our present subject, and which to avoid misconception and confusion, we shall endeavor to ascertain; yet, as some may regard such inquiries, which will be almost exclusively philological, as neither necessary nor interesting; we will present them in the form of notes, to be read or to be passed over at pleasure, for that which they may regard as having more to do with the main subject.*

(To be continued.)

* *חיה Chaya* and *בהמה Behemah*, In verse 2 of the 11th chapter of Leviticus, the Anglican translation renders *Zot hachayah* by "These are the beasts," *Behemah*, in the same verse, is also translated, "beasts." The Spanish Jewish translators, Menasseh Ben Israel, Serrano, Fernandes and Diaz, translate *hachayah*, we think with better taste, by *animales* and *behemah* by *quadropea*. De Reyna, however, generally so correct, here renders both by *animales*. Mendelssohn's German Jewish translation has respectively *thiere* and *thieren*, which, according to Weber, may mean either *animal*, *beast*, or *quadruped*; and so has the German Christian translators. But the Targum of Onkelos has for the first *חייא*; (*chayta*) for the second *בעירא* (*bengira*.) All lexicographers of note agree in deriving it from the root *חיה* (*chayoh*) to live. Among them, R. David Kimchi (*Shorashim*). So also Furst, who says it means *quidquid vivit, animal, de feris potissimum*; so too, Gesenius, who explains it as implying the beasts of the field, often opposed to tame animals (*behemah*) Gen. 1.24, but sometimes including them, Lev. 11. 2. So Newman. Leigh, in his learned "Critica Sacra" and his French translator DeWolzogue, are of the same opinion. But Parkhurst, perhaps more correctly, thinks the primary meaning of the root to denote *vigor*, power, he says as the noun it includes birds, beasts and reptiles, Gen. viii. 17, exclusive of fish and fowl, Gen. 1. 28, but frequently a wild beast as being more vigorous and lively than the tame species, Gen. i. 25. The Aruch from the Gemara of Cholin shows us (as did Maimonides in the extract elsewhere taken from him) that *chayah* is sometimes included in the term *behemah* and vice versa, *behemah* in the term *chayah*. And Rashi, in his comment on this verse, calls our attention to the same fact. In the Hebrew commentary to that edition of the Pentateuch, known as Mendelssohn's* we find the following remarks by that able grammarian Herts Wessely. "The word *chaya* includes all species (genera) man, beast, fowl and reptile; since all these possess a living being (*nefesh chaya*). In proof of this we find Gen. i. 'Let the earth bring forth every living creature (*nefesh chaya*) after its kind, beasts, reptiles and the beasts of the earth, after its kind.' The first (*nefesh chaya*) is the general expression; 'beasts, reptiles, and beasts of the earth' is the particularisation thereof. The meaning of the text here, then, is 'This is the living creature which you may eat of all creatures having a living being or 'existence.' In the derivation of *behemah*, the Hebrew grammarians concur, also referring it to the Arabic, or rather Ethiopic *bahm*, which means to be silent, dumb. It occurs not as a verb in Hebrew. As a noun Furst says it means "*bestia domestica quae opponitur feræ chaya jumenta, greges et omne omnino domesticum pecus.*" Ac-

*Ed. Berlin, 1832.

ART. XLIX.—Contributions to Clinical Surgery. By ROBERT L. MACDONNELL. M.D., Surgeon to St. Patrick's Hospital, &c., &c.

Successful Rhino-plastic Operation.—Mr. —, aged 30, two years ago, in an attempt to save an old man, who was maltreated by two strong young men, was knocked down and set upon by these men, and whilst one of them was engaged in kicking and cuffing him, the other attacked him savagely with his teeth and bit out several pieces from about his face and hands, amongst others, a portion of one ear, and the entire cartilage of the right ala of his nose, leaving but a small portion connected with the upper lip. He recovered soon from the effects of the beating, but the wound of the nose was a long time in healing, and left the nostril exposed on that side. He consulted a Surgeon about a year ago, who undertook to remedy the defect by engrafting on the cicatrix a portion of skin removed from the back of the patient's hand. This was accordingly done—the piece was removed, the edges of the wound pared, and the new substance retained in situ by means of adhesive plaster, and, as might be expected, no union took place. The patient now despaired of obtaining relief, and resigned himself to his condition, and selected an occupation that required withdrawal from society, for the annoyance he experienced from the examination and curiosity of strangers was very dis-

cording to David Levy, Gesenius and Newman, it denotes *tame cattle* if in opposition to *chaya*; and *large cattle* when in opposition to *mikneh*, (small cattle); Parkhurst gives its meanings 1.—Any brute, opposed to man. 2.—Any terrestrial quadruped, viviparous and of some size. 3.—A tame animal. Raphall says "In the Hebrew, "*behemah*" is used for *domestic animal*, and "*chayah*" *wild animal*. Some, however, are of opinion that all herbivorous animals, whether domestic or wild, are called "*behemah*," and that all carnivorous animals are designated by "*chayah*," Mendelssohn. We give the comment in Mendelssohn's Pentateuch (by Herts Wessely) on the word occurring Lev. xi., "All living creatures are included in the term *nefesh chaya*, even man, since it is said man became a *nefesh chaya* or living being. Wherefore, in speaking of the wild beasts of the forest, &c., an adjective, predicate or attribute is to be used. Thus we say, *chaya rangah* evil or ferocious beast, as Jacob in Gen. 37, so *chayat hasadeh* field-beast, Lev. xxvi.; so too *chayat haarets*, beasts of the earth Gen. i.; *chayat yangar* forest-beasts, Isa. 26. The term is especially applied to ferocious predatory creatures because of their extreme strength and vigor, while domestic animals are termed "*behemah*." Be it known also that "*behemah*" (is a common noun, and) includes all the species of animals walking earth, man excepted; as we find in Psalm xxxvi., "Man and beasts (*behemah*) wilt thou save, O, Lord," where it includes wild and domestic creatures; so also in 1 Samuel, ch. xvii. "the fowl of heaven, and beasts (*behemah*) of the field, &c., &c." The above shows us, as would also some slight acquaintance with Hebrew writers, that *chaya* means generally, though not always, *wild beasts*, and *behemah*, *domestic animals*.

tressing to him, being of a peculiarly sensitive and retiring disposition. He happened, however, to hear of a case in which I had remedied a somewhat similar defect, and determined to come to Montreal to consult me. On his removing the adhesive plaster with which he had concealed the deformity, I was struck with the peculiar shape and size of the deficiency in the nostril, which could hardly have been produced in any other way than that already mentioned, and in reply to my question, he admitted the fact. I recommended him to take a private ward in St. Patrick's Hospital, and stated my opinion, that an operation would remedy the defect. Accordingly on October 4th, assisted by my colleagues, Drs. David and Howard, and by Dr. Walter Jones, I proceeded to perform the operation in the following manner:—A small narrow bladed knife, (which I had found extremely useful in another rhino-plastic case, operated upon in the Hospital a few days before) was introduced between the skin and nasal bone, and carried upwards towards the edge of the orbit, care being taken to keep the blade close under the skin. When the point was felt in this situation, the edge was carried towards the mesial line so as to separate the integument from the bridge of the nose, which was rather prominent. The dissection being completed in this situation, the knife was carried downwards, still close under the skin, until it reached a level with the under edge of the nasal bone. The blade was then withdrawn, and entered under the remnant of cartilage before alluded to, as being still connected with the cheek, and pushed towards the ear, for about two inches, when the edge was turned upwards, the dissection carried on until it joined that before made. By this plan, the skin was detached off the subjacent parts, from the median line of the nose all over the cheek, and the scalpel passed freely about in all directions. Having thus made a large flap, the edges of the cicatrix were pared and brought together, and the stump of cartilage joining the cheek being brought into contact with the tip of the nose, was there maintained by a Dieffenbach's pin and twisted suture; two or three points of suture served to bring the remainder of the wound in apposition, and thus, what was before a semilunar cicatrix, appeared an incised wound, whose edges were in one line. To enable me to avail myself more fully of the flap detached from the cheek, an incision to the extent of a little more than half an inch was carried from the outer edge of the nostril, by which the tension was taken off the new ala nasi, and a plug of lint being introduced into the nostril, the dressing was completed: the loose integument being shoved from the cheek towards the nose, and there retained by means of compresses and adhesive plaster. The operation was in this manner performed, without making the least disfigurement of the face. Nothing remarkable ensued during the month the patient remained under

treatment. The needles and sutures were removed on the fifth day, union having taken place, but the remainder of the wound, continued to suppurate for the next fortnight. He now has a complete nostril—the nose is straight and prominent, and except, that on the side operated upon, the lower edge of the ala nasi, at its junction to the cheek, descends about the twelfth of an inch more than the other, no difference is perceptible as nothing marks the line of junction but a fine cicatrix, which has little appearance of being the result of a surgical operation.

The plan of operation in the foregoing case is a modification of the French method of Autoplasty, or as it is sometimes termed, *la methode par glissement*. It differs, however, from the French method, in the fact of the dissections being subcutaneous, which it is hardly necessary to mention, is a decided improvement, for it is often a question, whether the plan adopted to remedy some of these deformities does not leave a greater amount of disfigurement than that for which the operation was undertaken—and the practitioner who has only seen drawings and wood-cuts of rhino-plastic operations, can have but little idea of what shapeless masses of flesh, even the most successful of them are, when a whole nose has to be made. But when a portion only of the nose is lost, then, as in the instance before us, the deformity admits of being remedied. The plan I adopted is beyond measure preferable to that of taking a flap from the cheek, twisting it round and adapting it to fill up the chasm, for besides the scar on the cheek, the want of any portion of cartilage prevents a nostril being successfully made, so that whenever the surgeon can save a piece, no matter how small, of the original ala, he will find that it can be made to answer better for a margin, than any piece taken from the cheek, for besides rounding off the arch of the nostril and keeping the ala distended, it retains the property of dilatation and compression, owing to the insertion of the levator labii superioris alæque nasi, being attached to it, as well as the lower fibres of the compressor nasi, and it is acted upon, simultaneously with that of the opposite side, both in the acts of respiration, and the different emotional movements of the face. These peculiarities are well marked in the above case, and though not pointed out before, are in my mind, of some importance, and tend materially to the success of the operation, and to improvement of the patient's appearance. Although I have mentioned that the foregoing operation is a modification of the French method of autoplasty, yet it does not appear that French Surgeons have ever availed themselves of the flap made by subcutaneous dissection, and it is evident that the most recent writer on the subject is unaware of the possibility of the defect being remedied in this manner, for JOBERT says, "On a réparé également par la méthode indienne le lobule du nez et même, dit-on, les ailes du nez. Pour moi, sans blâmer l'emploi de

la méthode indienne pour réparer les difformités partielles du nez, je pense que lorsqu'il s'agit de son extrémité ou de ses ailes, il est préférable de tailler un lambeau aux dépens des joues ou des lèvres."—*Traité de Chirurgie Plastique*. Tome premier, p. 256.

3. *Successful Geno-plastic Operation.*

———, aged 45, applied to me for advice concerning an ulcer on the left cheek, which was evidently a genuine specimen of "Jacob's Cancer of the face." It had commenced seven years before, as a small scaly growth, about half an inch from, and on a level with, the commissure of the lips—on this a scab used to form, and remain on, until accidentally removed. When once the ulcer was formed, it exhibited no disposition to heal, and though its appearance would become improved under different plans of local treatment, it had never cicatrized, and though stationary for several months at a time, it would now and then commence spreading, and at last extended to the size of a half dollar. It was not painful at first, but had latterly become so; it had never bled, and the discharge was scanty, and not offensive. Though apparently superficial, on close examination, the entire thickness of the cheek was found engaged in the disease—the mucous membrane being, however, quite healthy in appearance. The commissure of the lips was free from disease, although quite close to it, and on inquiry, it was ascertained that it had never ulcerated nor become fissured. There was no enlargement of the glands under the jaw, and the patient's general health was quite good. Having already applied to various medical men for relief, and meeting with disappointment from all remedies recommended to him, I had little difficulty in persuading him to have it removed, and for that purpose he entered St. Patrick's Hospital as a private patient.

I mentioned to my colleagues that it was my intention to save, at all hazards, the commissure, and having excised the diseased portion, to make a check by the approximation of the edges of the circular wound left after its extraction. Accordingly, the lips were stretched so as to make tense the commissure, and a small knife passed between the mucous membrane and the margin of the disease, and then carried round the latter, leaving a margin of healthy structure attached to the disease. The surfaces of the wound were brought together by the twisted and interrupted sutures, and though I thought, before commencing the operation, that I should be obliged to loosen the upper and lower flaps from the subjacent structures, I had no difficulty in bringing the circular wound into a straight line, so as to resemble a simple incised wound. Cold water dressing was applied to the cheek and the patient desired to maintain perfect silence. In a few hours hemorrhage took

place from the mucous surface of the wound, and resisting the astringent powers of a saturated solution of tannin—had proceeded to a considerable extent before I had time to reach him: but when the edges of the inside of the wound were brought closely together by three points of suture, it immediately ceased. The patient now informed me that he and all his family exhibited the hemorrhagic diathesis, and that on one occasion he had nearly lost his life from the bleeding that followed the extraction of a tooth, whilst in the Limerick Infirmary.

Five days after the operation, the needles were removed, the inside sutures were allowed to remain *in situ*—and the union being now complete; the parts were well supported by adhesive plaster and collodion,* and the patient allowed to return home.

I have recently seen the patient, and nothing but a cicatrix on a line with the commissure is perceptible. The features of that side of the face are quite natural, and he has perfect use of the cheek. There is not the least sign of disease on the commissure, though eight months have now elapsed since the operation was performed. This fact, I am anxious the profession should have brought before them, for it corroborates a statement made by Professor Serre, of Montpellier, that the mucous membranes in the immediate proximity of cancerous growths, or even covering them, exhibit but little proneness to become implicated in the disease, and consequently should be preserved for a covering in all cheilo-plastic operations for the flaps with which the new lip is to be made. Being aware of this important discovery, and also knowing how difficult it is to form a good and useful commissure, I was particularly anxious to save the natural one, and was fortunate in so doing, though, had I not known the useful fact stated by Serre, I should certainly have removed it in connexion with the disease. I have at

* Though the remarks of Professor Syme concerning the impropriety of using collodion in the first instance, when we endeavour to procure "primary union," are quite in accordance with my own experience, yet I have found it a most excellent remedy in keeping up tension and approximation, after needles and sutures are removed. When collodion was first introduced, I used it in addition to sutures in two cases in which I had amputated the breast, having read such flattering statements of its successful employment in similar cases. But to my great disappointment, the edges of the wound, though closed and apparently united, became prominent and inflamed, and on some of the collodion being detached, a large quantity of pus escaped in both instances, to the great relief of the patients, and the wounds, which under other circumstances, I have no doubt, would have united by "primary union" to a great extent, healed by the slow process of granulation. The results of the use of the remedy in these cases, had induced me to abandon it in all cases as a means of uniting the edges of a recent wound; but where we have removed sutures and needles, it will be found a valuable remedy, care being taken to leave spaces for the discharge to escape.

this moment a patient with cancer of the lip, in whom the removal of the disease will necessarily involve cheilo-plasty, and as the case affords a good opportunity for testing the correctness of Serre's statement, I will lay the result before my readers on some future occasion.

In conclusion, I may state, that the disease exhibited a true specimen of Cutaneous Cancer, and I cannot agree with the views recently advanced that "Jacob's Ulcer" is a species of Lupus, that it is, in fact, *Lupus Devorans*, though this opinion is advocated by so accurate an observer as Dr. Neligan, whose recent work on Cutaneous Diseases has just reached us—but to this subject, I will draw the attention of the readers of this Journal in the next number.

4. *Successful treatment of a large Encysted tumour by puncture of the sac and cauterization of its interior.*

It will readily be admitted that if we can cure a disease situated on an exposed part of the body, by any means which will not disfigure the patient, or leave an unsightly scar, it must be considered an improvement in surgery ; and with the object of doing away with the use of the knife, and substituting a simpler and equally successful practice, I recommended some years ago, in the pages of the *British American Medical Journal*, that many encysted tumours should be punctured, their contents carefully evacuated, and then the lining membrane of the cyst, cauterized by means of nitrate of silver, conveyed to it on the end of a probe ; and that as soon as suppuration, or mere effusion of lymph had taken place, that the opposed surfaces of the cyst should be brought together by pressure, and thus obliteration be produced and a recurrence of the disease prevented. Since that article was published, I have treated in this manner several such tumours, and have never known the disease to return ; and as one of these cases was under the care of some practitioners in this City who proposed removing it by excision, and declared that any other attempt at cure would be improper, I bring its particulars before the profession that they may judge for themselves. A strong healthy young woman noticed a small tumour growing upon the back of her neck, but which caused her no pain. At first it could only be detected by feeling, but it soon became perceptible to the sight, and in the course of two years had attained the size of a turkey's egg : it was elastic, moveable, not discolored, and handling it, gave rise to no pain. From the fact of its being so prominent and in such an exposed situation, she was obliged to keep a handkerchief applied so as to cover all the back of the neck. Feeling much alarm at the size the tumour was daily acquiring, she applied to three practitioners, all of whom advised its removal. One in particular was

very urgent in his solicitations to be allowed to perform the operation and took some pains to explain to both herself and her friends, the folly of attempting to remove it by an *elliptical* incision, as recommended by one of the others, assuring her, that nothing but the crucial incision and mastely dissection would effect that object.

Under these circumstances she consulted me, and having ascertained the nature of the disease, I proposed curing it, without leaving a crucial cicatrix or indeed any mark that could be detected. To this proposal she gladly assented, and accordingly, on the 14th May, 1849, assisted by Dr. Brookes, of Sherbrooke, and Dr. M'Callum, of this City, who were then my clinical clerks, I proceeded as follows: A hydrocele trocar was pushed into the tumour, and its contents emptied into a middle sized cupping glass, which they filled. On examination they were found to be composed of a turbid fluid, devoid of odour, with a quantity of thick cheesy, steatomatous matter floating through it. The sac being emptied, two or three probes, whose ends were coated with nitrate of silver were, in succession, introduced and freely applied to all parts of the cyst. A plug of lint was introduced into the opening, and water dressing applied. The next day, on the lint being removed, a quantity of sero-purulent matter, equal to one half of what the cyst contained the day before, was evacuated. The caustic was again applied and the wound similarly dressed. On two more occasions the same plan was adopted, and at each dressing the size of the cyst was perceptibly diminished. Pressure, by means of a compress and adhesive plaster were now applied, and complete obliteration of the cyst was effected at the end of a fortnight. It is now three years since the tumour was thus treated, and she has had no return of the disease, and I need not say, is much better pleased to be devoid of the vestiges of such skilful Surgery as that so disinterestedly recommended for her relief.

—one *Traumatic*, the other
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and Medicine.

brought her daughter, Miss B.,
t eye, which had been perfectly
the case that either mother or
iously, by an accidental circum-

stance, it was discovered that the child was blind of one eye. The child never remembered having had any pain, and the mother was sure that the child never had any sort of a sore eye. If the strong light of a candle or the direct rays of the sun were brought upon her eye, she perceived light, but this was all. Her general health was perfectly good, although there existed all the signs of a strumous diathesis. The left eye was perfectly healthy; colour of iris blue. The mother was positive that there was nothing the matter with the child's eye when three or four years old. On examining the eye the only abnormal appearance that I could observe was, that the pupil was very small, of nearly a triangular shape, and blocked up with organized lymph, in fact, pure lymphatic cataract, presenting all the appearance to be found in a case the result of long continued inflammation. The iris was something of a darker colour than that of the healthy eye, having rather a greenish hue. There was no increased vascularity in any part of the eye-ball. I ordered the child a dose of purgative medicine that day, and on the next day I operated with the needle, through the cornea, with which I divided in pieces the lymph in the pupil, and afterwards a soft cataract which I found behind it. The ordinary treatment after such operations was adopted. It was followed by slight inflammation, and at the termination of six weeks, there was a tolerably fair sized pupil, and sight much improved. There were yet, however, some bands of lymph crossing the pupil. There being no more improvement after two months than there was after the expiration of six weeks, I again operated in the same way, dividing the remaining bands of lymph. The same after treatment was adopted, but on the third day traumatic inflammation supervened, the iris was perfectly green, and blood vessels could be seen to traverse it even with the naked eye. The sclerotic was of a dark red colour, every part of it injected with blood, yet there was no pain, nor the slightest intolerance of light, and the child herself was perfectly unconscious that there was anything wrong, more than that she could not see so well as before I last operated. I put her upon calomel and quinine, one grain of the former and half a grain of the latter, every six hours. In three days mercurial foeto supervened, which action I kept up for a week by giving one grain of calomel every night; during the same week she took one grain of quinine in solution three times a day. At the termination of a fortnight all inflammation disappeared; absorption went on, and she received tolerably fair vision with nearly a circular pupil.

Case 2.—J. Q., labourer, aged 40 years, received into the Ophthalmic Ward of St. Patrick's Hospital, April 20, 1852, stated that he had been under the care of Dr. ———, for six months for disease of his eyes, that for the first fortnight he suffered some pain in his eyes and slight pain in

his forehead, but since that time he only suffered from scalding tears, and the pain caused by exposing his eyes to light. That for the last three months he could only discover light from darkness. During the six months he had used a great many *bottles of wash* for his eyes, but never took any medicine. On examination, I found that he could not observe my hand move between him and the window, yet he complained of intolerance of light when his eyes were opened and exposed to it. The sclerotic coat was of a deep red colour. The pupils were contracted to almost the size of a pin's head, and blocked up with lymph. Vessels could be distinctly seen traversing the surface of the iris and crossing the lymph in the pupil. The anterior surface of the iris was convex and nearly in contact with the cornea, thereby obliterating the outer chambers of the eye. I must confess that I had but little hopes of benefiting this man, as from the history of the case, together with the appearance of the eye, I feared much that the retina had been either disorganized, or covered with lymph. I determined, however, to give the case a trial, and at once put him, after well purging him, upon one grain of calomel and half a grain of quinine every six hours, and applied extract of belladonna round his orbit once a day. On the twelfth day he was salivated, but from the sixth the inflammation began to subside and his vision to improve; the pupils about as large again as when he came into Hospital; no intolerance of light. I kept his mouth sore for twelve days longer by giving him one grain of calomel every night, and sometimes twice a day, during which time he took one grain of quinine in solution four times in a day. At the end of this time the pupils were about four times as large as they were when he came under my care; they were in shape very similar to the leaf of a shamrock or clover. The greatest part of the lymph was absorbed; but there were yet some bands crossing the pupil. I then put him upon the solution of biniodide of mercury ten drops three times a day (every ten drops of this solution contained the one tenth of a grain of the biniodide of mercury) which treatment, with the daily application of the extract of belladonna round the orbits, I continued till the 12th of May, twenty-two days after his admission. At this period the iris began to lose its convexity, and the anterior chamber of the eye, consequently, too became large and of a normal appearance. The sclerotic coat had become perfectly white, and no more vessels were observable traversing the iris. One band of lymph remained across the left pupil, but none in the right. He could distinguish the different persons in the Ward with him. His mouth having been kept slightly sore up to this time, I discontinued the biniodide of mercury and put him upon the Hydriodate of Potass, ten grains every eight hours. I also ordered his diet to be improved from soup to meat, once a day. On the 25th of May, I discharg-

ed him from Hospital, being at the time able to see the houses on the opposite side of the river from the window of the Hospital, a distance, I should suppose, of two miles. This man called to see me early in the present month, and he stated that his sight was improving every day, so that he could then see nearly as well as ever he did. His eyes presented a very healthy appearance, with the exception that the pupils were irregular, and a slight band of lymph was still visible across the left pupil.

I consider these two cases of importance. First, because they prove how such inflammation of the eyes may go on so as to destroy vision, and yet present few of the diagnostic symptoms. Secondly, the necessity of carefully examining the eyes when dimness of vision is complained of. Thirdly, the necessity of a correct diagnosis; and fourthly, these cases prove how much disease the eyes will sometimes bear without being destroyed, and I consider the last case is a most satisfactory proof, that under certain circumstances even organized lymph will be absorbed by properly directed treatment.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

God in disease, or the Morbid Manifestations of Design in Phenomena. BY JAMES F. DUNCAN, M. D., Physician to Sir P. Dunn's Hospital, Dublin. Philadelphia, Lindsay and Blakiston, 1852.

The intention of the author in writing this little book, is, to use his own words, "to unfold, by an analysis of the phenomena of disease, the evidence of design, contrivance and beneficence, that are scattered in profusion over every page of this volume of natural history."

Several departments of Medical Science, such as Anatomy, Chemistry and Physiology have long since been ably considered in relation to natural theology: and the talents of such men as Sir Charles Bell, Prout and Roget have been devoted to the work, but this, we believe, is the first time that the department of pathology replete with evidences of Divine Wisdom, Power and Goodness, has been examined as a whole for manifestations of the Omnipotent Deity. To have done this is no small honor, but to have done it well, to have brought an extensive knowledge of the present advanced state of Medical Science to bear on the subject and to have exhibited much discrimination in the selection of illustrations, much force and clearness in the advance of arguments, and much firmness in the statement and solution

of objections is an additional tribute justly due to Dr. Duncan. We cordially recommend the work for general perusal, its language being so devoid of technicalities as to be intelligible to every class of readers and its price placing it in the reach of all.

Human Physiology. BY ROBLEY DUNGLISON, M. D., Professor of the Institutes of Medicine in Jefferson Medical College, Philadelphia, &c., &c. Seventh edition, thoroughly revised and extensively modified and enlarged. In 2 volumes, 8 vo., p. p. 14 28. Lea and Blanchard, Philadelphia, 1850.

This work is already so favorably known to the Profession in North America, that an extended review of it is unnecessary. A book which has gone through six editions, and a seventh before us, speaks much in favor of its excellence. In the present edition all the most recent discoveries in Physiology during the past few years have been carefully embodied and thoroughly discussed.

The author states in his preface :

“Perhaps, at no time in the history of the science have observers been more numerous, energetic and discriminating than in the last few years. Many modifications of fact and influence have consequently taken place, which it has been necessary for the author to record, and to express his views in relation thereto. Especially has he endeavored to note the phenomena that have presented themselves to the most accurate observers, and to deduce from them laws which may tend to enlarge the boundaries of the science; he has not, however, felt himself at liberty to discard the results of the observations of all former anthropologists, or the opinions they had embraced in regard to the various functions. It not unfrequently, indeed, happens, that in ignorance of the history of the science, views are esteemed new, which had been promulgated by earlier investigators. He has, therefore, in an encyclopediac work like the present, retained many of those opinions whilst he has labored to do especial justice to such as have emanated from more recent inquiries. In this respect, his work differs from many valuable physiological treatises that are before the public.”

The work has been embellished with the addition of many very highly finished illustrations, now numbering 474 ; and a Bibliography is contained in the first volume, exhibiting the number and variety of sources of information at home and abroad which the author has had to consult, thus rendering the work complete in every respect.

There is no single book we would recommend to the Student or

Physician, with greater confidence than the present, because in it, will be found a mirror of almost every standard physiological work of the day. In such valuable contributions as those of Todd and Bowman, Kirkes and Paget, Carpenter and some others, particular portions of Physiology receive special attention, whilst others are briefly considered, and in none, is there to be found a complete epitome of this branch of Medical Science. In the work before us this defect is more than supplied, and every subject in connection with Physiology receives that consideration at the hands of the author which its importance demands, and which at the same time is compatible with the limits of the work.

We most cordially recommend the work to every member of the profession, and no student should be without it. It is the completest work on Physiology in the English language, and is highly creditable to the author and publishers.

G. D. G.

Operative Surgery Illustrated, containing more than Nineteen Hundred Engravings, including Two Hundred Original, and Fifty Colored Drawings, with Explanatory Text. BY R. A. PIPER, M. D., Boston—Ticknor, Reed, and Fields.

When we received the work before us, we fancied we had obtained one of Mr. Churchill's, celebrated manuals, for though larger than these treatises, it resembles them much in outward appearance, and is not surpassed by them, either in the printing, paper, binding or illustration.

Our American friends are "going ahead" in the matter of book-making—and we hope ere long to see no more of those unsightly tomes, with sheep-skin covers, bad print, fuzzy paper and execrable woodcuts, in which, (by some perversion of taste) our friends have, for so long a time, thought it absolutely necessary to serve up a Medical Treatise. The illustrations in the above work, are beautifully and accurately executed—and we believe, that there is a representation of every operation as yet performed or proposed. It is not to be supposed, that these illustrations should be original, they are taken from all the recent works, of British, French and American origin, and are accompanied by clear, accurate and appropriate commentaries. Our readers, must not expect a *treatise on operative surgery*, but they will find operative surgery, well-illustrated in Dr. Piper's Work; and to those who have occasion to employ the knife, we strongly recommend it as 'a useful guide.

A Practical Treatise on Dental Medicine, &c. BY THOMAS E. BOND, A. M., M. D., Philadelphia—Lindsay and Blakiston.

WE doubt not, there are many of our brethren throughout the country, to whom a good plain treatise, upon the diseases of the teeth, would prove an acceptable boon. They must frequently meet with cases, where such a work would be of great assistance to them, and relieve them of much anxiety, and as a regular Dentist, cannot, in all such cases be consulted, we would recommend them to purchase and become familiar with the excellent treatise before us. But whilst we recommend Dr. Bond, as a judicious teacher in his own branch—*dentistry*, we would warn our readers, to pay no heed to his instructions, when he wanders into the realms of *surgery* for most assuredly he is a sad authority on this branch, which we can see no good reason for his introducing in his work. A surgeon may be asked to clean and stuff teeth, and if he be wise, he will refuse; but we cannot conceive any one asking a dentist to remove his upper jaw, to excise his inferior maxilla, or to operate on his child's hare-lip; and therefore, we think Dr. Bond might have left such subjects to those whose proper duty it is to treat these diseases. As a specimen of the mode of instruction Dr. Bond gives in surgery, we quote the following passages. Speaking of the operation for hare-lip, he observes: "The wound is closed by the *twisted suture*; that is, two silver pins, with steel separate points are introduced" &c. "The points of the pins should then be unscrewed" &c. Now we have heard of such pins, and we believe, we once saw one, but we doubt, if Dr. B., has ever seen such a pin, and if he happen to have a spare one, we shall be obliged, by his sending it to us, that we may exhibit it to some of our surgeons here, who have been performing this operation, it is to be presumed, very improperly without any such specimen of Chirurgical foppery. Of the formation of a new lip (*cheilo plasty*.) Dr. B. discourseth as follows: "In order to obviate this difficulty, the celebrated Dieffenbach, who has deservedly obtained a world-wide reputation, for his success in rhino-plastic surgery, suggested that a stripe of mucous membrane, should be folded over the

note, to this passage, he gives no doubt, be duly appreciated by nose-making; a term first applied for a lost nose, but now applied Wherefore your divisions and Delpech, Serre, Jobert, and Dr. Bond's Rhino-plasty? Why us, with your Rhino-plasty, lasty, Oto-plasty, Ophrio-plasty,

Auto-plastie Crânienne, Kirato-plasty, Stomato-plasty, Staphylo-plasty, Palato-plasty, Urano-plasty, Batra-cosio-plasty, Laryngo-plasty, Tracheo-plasty, Thoraco-plasty, Entero-plasty, Hernio-plasty, Urethro-plasty, Cysto-plasty, Elytro-plasty,—all of which you have the cool effrontery to tell us are divisions of *Auto-plasty*; when it really appears, from what Dr. Bond has discovered, that these divisions are all moon-shine, and that if a man be so unfortunate, as to require *Urethro-plasty*, you have only to perform *Rhino-plasty*, for his cure. But can it be just that the Urethra, should be repaired at the expense of the nose, seeing that the nose is so frequently lost, through the misconduct of the Urethra? Time was when the "learned Taliacotius," from "Porters Bum," took the materials for his "sympathetic snout," but to Dr. Bond we are indebted for the above curious instance of retributive justice. Well may the modern Surgeon exclaim, *nous avons changé tout cela*.

Dr. Bond, has himself defined what he wishes a dentist to be—"not a mere mechanic employed to repair the teeth, or, if necessary, extract them, but an accomplished physician and surgeon, who, while devoting his attention particularly to the teeth, is prepared to undertake the treatment of the adjacent parts, however formidable and complicated their diseases may be." If we are to have such dentists, it is time that surgeons themselves, take up this neglected department of practice, and be prepared to "repair the teeth, or if necessary extract them," for there will soon be no *special* dentists, such as we have hitherto been accustomed to, and it is certainly easier for a surgeon to learn to repair, and if necessary, extract teeth, than for a dentist to acquire sufficient knowledge to operate for hare lip, ranula, excision of upper and lower jaws, removal of epulis excision of exostosis "removal of a polypus, or other tumour," &c., &c.

We have pointed out the imperfections of the work, and these are confined to that section of it, which treats of pure surgery, as distinct from Dental Surgery; it was not to be expected that Dr. Bond, should be well informed in this branch, and he has erred in introducing it at all; for he has not written one line which shows he has the least familiarity with the subject.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Observations on the Symptoms resulting from an Undescended Testicle, which were of so painful a Nature as to necessitate its Removal. By JOHN HAMILTON, Surgeon to the Richmond Hospital, Examiner in Surgery to the Queen's University in Ireland, &c.

THIS is an article from the pen of one of those "Practical Surgeons" for which Dublin has long been celebrated. After adverting to the rarity of the arrest of the testicle in its descent during foetal life and pointing out the different places in its course, at which it may be arrested, he observes:—Occasionally it happens that during a violent effort the testicle is suddenly forced into a new situation, where the compression to which it is subjected, soon induces such pain and inflammation as to call for the most active antiphlogistic remedies. The symptoms, also, are at times so violent, that (the tumour on the groin, occupying the usual seat of inguinal hernia) they have been taken for those of strangulated hernia. In illustration of this, he refers to Mr. Pott's case, which is sufficiently well known, and to one related in the *Revue Médicale*, by M. DeLasiauve. He gives an abstract of the latter, and then proceeds to say:—In this case, inattention and ignorance led to the removal of the testicle: on that which I am about to relate, it will be seen that the malposition of the gland in the groin gave rise to such distressing symptoms that its ablation was rendered absolutely necessary.

Mr. W, aged 45, always had a swelling in the right groin, which he and others fancied was a rupture. At one time he got a truss, but the pressure caused such pain that he could not bear it.

About seven weeks since, while lifting a heavy weight on board ship, he felt something on the situation of the swelling crack "like an egg shell," attended with great pain, shooting up the back and round the hip. The pain was so severe that he could not stand. Leeches were applied: he was cupped on the loins and he was purged, with relief,

ch general illness, that his brother-in-law ascertained, however, that it had

appearance and situation an inguinal tumour situated on the inguinal canal, and a ring, about the size of a hen's egg. so exquisitely sensitive that examination ascertained, however, that it had

much the feel of a rather firm hernia, that it was smooth and elastic, and *not moved by coughing*. That part of it which protruded below the ring was very hard, and somewhat irregular, and seemed even more tender than the rest. He suffered great pain, not only in the swelling, but up the abdomen to the right loin. He was sick in the stomach, *but the bowels were open*. Skin hot; tongue whitish. As no testicle could be felt in the scrotum of the same side, I had no hesitation in attributing the symptoms to inflammation of an undescended testicle. The inflammation was probably caused by the testicle having been violently dislodged from its usual position on the inguinal canal, and forced into a narrower one, where it became subjected to severe compression by the unyielding tendinous expansion of the external oblique muscle. The violence of the attack speedily yielded to leeches, tartar-emetic and mercury, but the tumour still remained very sensitive; and that portion which projected external to the ring, was hard, and very tender; this afterwards proved to be the inferior globus of the epididymus, unusually elongated. When he got up and attempted to walk, he suffered pain, shooting from the testicle up the back, and was forced to go about with the body bent forwards, the erect position causing pain in the testicle. A fortnight had scarcely elapsed when, without apparent cause, the testicle became again inflamed, and in the short interval of seven weeks he had altogether four attacks of orchitis. As I have mentioned, I treated the first attack with leeches, cold lotions, antimonials and mercury; but the subsequent attacks differently. In the second, I tried the anodyne plan recommended by Mr. Gray, of the Free Hospital, London, which I have found useful in several cases of the ordinary gonorrhœal orchitis: a pill composed of two grains of extract of hyascyamus, with three of Dover's powder every fourth hour; warm poppy head stupes, and finally a blister. The last certainly had a most surprising effect; directly it rose, the pain and swelling subsided. In the last attack I removed the inflammation and its effects by a purge and blister alone.

This attack came on in a most unexpected manner. He had recovered from a former one more completely than usual; and, not to risk a relapse, he remained in bed for a few days after being to all appearance quite well, when turning in bed, he felt the testicle suddenly slip and go wrong, and inflammation commenced on it immediately. It now became clear, therefore, that though these attacks yielded to treatment, no safeguard existed against their repeated return. In consequence of the effects of the first effort, the position of the undescended testicle had been so changed that it was not only uneasy during any moderate exertion, but liable in a moment to become further dis-

placed, and to be injuriously compressed by the neighbouring parts. So circumstanced, he could not follow any calling which demanded the slightest effort; his future prospects were, therefore, as gloomy as his present state of suffering was distressing. Something more effectual must be attempted. Two plans presented themselves: first, to cut down to the external abdominal ring, slit it up, and that portion of the tendinous expansion of the external oblique muscle which forms the anterior wall of the inguinal canal, and which covered the testicle. This operation was suggested by Sir Philip Crampton in consultation. It appeared to me, however, that after all it might only prove palliative, for when the wound had healed, and cicatrization taken place, the hard cicatrix might be as bad as before. It would be little more severe to remove the testicle altogether. To the removal of the testicle the patient most readily consented, though it was explained to him that the operation was not quite free from danger, the risk depending in a great measure on whether the serous sac or tunica vaginalis in which the testicle bag communicated with the cavity of the abdomen or not.

December 22nd, 1851. Assisted by Sir Philip Crampton, Dr. Frazer, and my pupil Mr. Malock, I removed the testicle, the patient being under the influence of chloroform.

An incision, between three and four inches long, was made over the tumour, and the layers of fascia rapidly divided down to the sac in which the testicle lay. The tendinous fascia of the external oblique was much thinner than usual. The walls of the sac felt thick, and it evidently contained fluid. I made a small cautious opening, when a quantity of transparent, yellow serum flowed out, the same in appearance as that of ordinary hydrocele. The sac was slit up, and the testicle could be seen lying in the tunica vaginalis; the membrane smooth and serous, but much more vascular and red than natural, and many bright red bands of adhesion existed between it and the surface of the testicle. There was no communication with the peritoneal cavity. The testicle was smaller than ordinary, its surface smooth and serous, but red; it was dissected out, along with its enveloping sac, from the subjacent parts, and the cord was also carefully separated. This was less easy and required more caution than in ordinary castration, as there was little space between the upper part of the testicle and the internal abdominal ring. A ligature was put round the cord, which was then divided, and the testicle taken away. There was very little bleeding. The case went on with scarcely a troublesome symptom, and in a little more than three weeks after, he walked into my study with the wound just healed, and with perfect freedom from any of his former morbid sensations.

After removal, examination showed the testicle to be smaller in the body than natural, but having the usual pulpy feel. The tunica albuginea was unusually thin, and when a portion of it was dissected off, the tubuli seminiferi appeared natural, but the division into lobes was much more distinct. When a piece of a seminal tube was placed in the field of a microscope, the structure was quite normal, but the fluid in it contained no spermatozon, only seminal granules. Some of the fluids expressed from the vas deferens exhibited the same character,—no spermatozon. The attempt was made by Mr. Carte to inject quick-silver down the vas deferens, but it stopped at little more than an inch from the orifice, in consequence, as we found, of its being blocked up by a yellow substance of firm consistence. The epididymus presented characters quite peculiar: it was unusually long and large; the inferior globus that was felt external to the abdominal ring was much elongated and very hard; there was an appendix from the upper part of the epididymus, and a single hydated was discovered in it. The vas deferens of the ordinary size, but very hard, had not the usual zigzag convolutions on itself, but was very straight. The same firm, yellow substance which blocked it up was also found to fill the vasa efferentia.

As far, therefore, as the condition of the testicle went, there can be no doubt that its functions were irretrievably gone, and no regret can be felt at its removal. The deposits were, no doubt, the result of frequent attacks of inflammation; the intense redness of the tunica vaginalis, and the vascularity of the surface of the testicle, along with the adhesion, show this inflammation to have been of an unusually severe character.—*Dublin Quarterly Journal of Medical Science.*

PATHOLOGY AND PRACTICE OF MEDICINE.

On Effusions into the Pleural Sac and their Treatment by Paracentesis Thoracis. By W. PEPPER, M. D., U. S.

[After the detail of four cases, Dr. Pepper concludes with the following practical commentary:]

The operation of paracentesis thoracis has at all times been viewed with more or less distrust by many distinguished members of our profession; and although this prejudice is now rapidly disappearing, owing to the numerous instances in which the most beneficial results have followed the operation, there still remains much discrepancy of opinion as to the particular circumstances under which this procedure is justifiable. And, indeed, it will be found upon impartial investigation, that most of the disastrous results consequent upon it are fairly attri-

butable to the want of proper discrimination in the selection of cases. Formerly, when the profession was in great measure ignorant of the physical signs indicative of effusion into the pleural cavities, it is not surprising that numerous instances of erroneous diagnosis and consequent faulty practice should have occurred ; such as puncturing an enlarged liver or spleen, or medulary tumour, under the impression that fluid existed in the thoracic cavity; or even opening the sound, instead of the diseased side, when such effusion absolutely existed, and thus giving rise to collapse of the healthy lung, and consequently to speedy dissolution. But now that the physical signs are known to afford great certainty in determining the extent and character of thoracic disease, such errors cannot occur, except as the result of culpable ignorance or carelessness; and it is owing to the great improvement in this department of our science that the operation of paracentesis is beginning to be viewed with more favor by the profession.

It would be a work of supererogation, at the present time, to enter fully into details in regard to the physical signs indicative of intrathoracic effusions, and my remarks under this head shall, therefore, be as brief as possible. Dulness on percussion is one of the most important indications of such a condition, and it exists to even a greater degree than in pneumonia, whilst at the same time the elasticity of the chest is entirely destroyed. In those cases where the pleural sac is not filled with fluid, the line of dulness can generally be varied by changing the position of the patient; occasionally, however, the fluid is limited by adhesions, and, therefore, uninfluenced by position. The distension of the chest should next claim our attention. In some instances, the circumference of the diseased side will exceed the healthy by one or two inches ; whilst, at the same time, the intercostal spaces may be distended or bulging. In extreme cases, the heart will be displaced to the right or left, and the liver depressed by the superincumbent fluid. The absence of all vocal vibration, also, constitutes an important indication. In like manner, auscultation is all important in forming our diagnosis; thus, when the fluid is not considerable, a distinct ægophonic resonance of the voice, and a peculiar modified bronchial respiration, can be generally heard over the back, and even in the axillary region; whereas, when the accumulation is very great, these phenomena entirely disappear, or, at most, can only be heard over the root of the lung. Where most of the above signs coexist, as is generally the case when there is an extensive effusion, it would be quite impossible to fall into any serious error as to the true nature of the disease. At the same time, however, it is important to

attend to the previous history and accompanying functional disorders, such as dyspnoea and inability to lie on the sound side, paucity of cough and expectoration.

That there are cases of effusion, puriform or otherwise, which are not manifested by the above symptoms, must be conceded; as, for instance, when the fluid is confined between the lobes of the lung, or between the latter and the diaphragm; and it is also well known that when the effusion is but moderate, and of gradual formation, no marked dyspnoea is induced, nor are the viscera displaced, or the side distended. It may happen, in cases of local effusion, and where partial absorption has taken place, that the chest may even be contracted; but under the above circumstances paracentesis is not called for, and no objection can, therefore, be urged against this operation from these occasional difficulties in diagnosis. Encephaloid degeneration of the lung has, in several instances, been mistaken for empyema; and when we bear in mind that, in this latter affection, the percussion may be perfectly flat, the side distended and inelastic, the viscera dislocated, and all respiratory sounds and rales entirely absent, it must be confessed that much discrimination is necessary in forming our opinion as to the true nature of the case. In one instance, where "the question had been agitated as to whether paracentesis of the chest might be advisable," Dr. Stokes was enabled to pronounce upon the cancerous character of the affection, mainly by the varicose condition of the veins of the diseased side, and the currant-jelly-like sputa, in connexion with the previous history of the case. These peculiarities do not always attend cancerous degeneration of the lung; and, moreover, it should be remembered that the disease is frequently complicated with empyema, rendering the diagnosis more and more obscure. The fact that encephaloid degeneration of the lung is generally associated with humours of similar character occupying the mediastinum, and pressing upon the important organs contained in the region, will of itself frequently enable us to form a correct diagnosis; since, under these circumstances, we have violent pain in the neck or shoulder, with oedema of the face, chest, and arm, in connexion with dysphagia, hoarseness, and other symptoms caused by the pressure of the tumour. Moreover, cancer of the lungs is commonly attended with that peculiar condition of the system denominated cancerous cachexia; and not unfrequently we at the same time find malignant tumours occupying some of the external parts, as the gland of the neck or sides of the chest; the previous history of the case will also greatly aid us in forming a correct opinion as to the true nature of the disease. The only other affection of the lung likely to be confounded with empyema is chronic pneumonia; but in this disease the

pulmonary induration is clearly indicated by the increased vocal resonance and vibration, want of distension of the side, viscid sputa, and mucous rales.

Enlargement of the liver has occasionally been mistaken for empyema; but such an error could always be avoided by strict attention to the physical signs already enumerated, such as dislocation of the heart, prominence of the intercostal spaces, and bronchial respiration at the root of the lung; besides which, the previous history and accompanying symptoms could not fail to remove any remaining doubt. These two affections are, however, very frequently associated; for not only is the liver depressed in empyema by the superincumbent fluid, but owing to the pressure of the collapsed lung and fluid upon the ascending cava, preventing a free return of venous blood to the right auricle, it is also frequently much engorged. This condition, according to Dr. McDonnell (*Dublin Journal of Med. Sci.*, 1844,) occurs as well in empyema of the left as of the right side, and is owing to the supplementary action imposed upon the liver by the imperfect decarbonization of the blood in the lungs. Whatever may be the true explanation of this congestion, its existence certainly forms an important feature in the history of empyema, particularly in reference to the operation of paracentesis. The above author also reports several cases of "pulsating empyema" of the left side, where the puriform matter in the external cellular tissue communicated with the intra-thoracic abscess, and thus received the indirect impulse of the heart. Under such circumstances, it is conceivable that these pulsating swellings might, by the careless observer, be mistaken for an aneurism, or a cancerous tumour; but the locality of the swelling, its fluctuation, the absence of thrill and rasping sound, in connexion with the extensive dulness of percussion and other physical signs of empyema, would at once distinguish it from an aneurism; whilst the absence of the cancerous cachexia, and of the peculiar elasticity so characteristic of medullary tumours, would clearly show its non-malignant character. A mere abscess of the cellular tissue, not communicating with the cavity of the thorax, could hardly be mistaken for empyema, since it would neither be increased

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Pulmonary tubercles are so frequently associated with empyema, that it becomes exceedingly important to direct our attention to this complication, particularly when paracentesis is proposed, since the ultimate success of the operation must, in a great measure, depend upon the perfect integrity of the lungs. When the tubercles are numerous or softened, giving rise to solidification or vomica, the true state of the case is at once revealed by auscultation and percussion; but, on the other hand, when they are small and disseminated, their presence is not indicated by any marked physical signs, and we are then obliged to rely more upon the previous history and general symptoms. It is worthy of observation, however, that in uncomplicated empyema, the lung of the sound side, owing to its supplementary action and increased determination of blood, is generally more or less congested; and it is, hence, no uncommon occurrence to find the respiratory murmur, in a measure, obscured by various râles, which might readily induce the belief that the disease was complicated with bronchitis or tubercles; under these circumstances, the expectoration occasionally becomes puriform (owing, as it has been supposed, to a species of vicarious action,) and thus tends to confirm the erroneous impression. At other times, the puriform sputa may proceed from the fistulous opening between the pleural cavity and the bronchial tubes of the compressed lung; in such cases, however, the pleural sac generally contains more or less air, as evinced by the tympanic percussion, and the peculiar gurgling induced by succession. Under these circumstances, it becomes important to ascertain whether the fistula has been caused by tubercular perforation, or by the corrosive action of the pus in the pleura. When it can be ascertained that the patient, after suffering for some time with cough, or other symptom of pulmonary irritation, has been suddenly seized with acute pain in the axillary region, followed by extreme dyspnœa, we may reasonably conclude that any pleuritic effusion consequent upon such a seizure has been the result of tubercular perforation; whereas, when the symptoms of pleurisy have occurred in the midst of perfect health, followed by a gradually increasing difficulty of breathing, and, at a still more remote period, by a sudden and very copious discharge of pus from the lungs, there can be but little doubt that the fistulous opening has been caused by the empyema bursting into the bronchial tubes. In those cases where the disease had been observed throughout, the physical signs would prevent all error upon this point. In connexion with the diagnosis of empyema, it is important to observe, that, when this disease is complicated with pneumothorax and purulent expectoration, it by no means follows that a fistula of the lung necessarily exists; the air in

the pleural sac may be evolved by the healthy pus, and this is particularly the case where there is necrosis of the ribs.

[Speaking of an important element in diagnosis, the author proceeds:]

It still remains to be considered whether there are any means by which the character of the pleuritic effusion can be positively ascertained. The mere intensity of the symptoms is no evidence of puriform effusion, since this may result from a low grade of inflammation, whilst, on the other hand, the most severe forms of pleuritis frequently end in effusion of serum and lymph; nor is the long duration of the effusion any proof of its puriform character, inasmuch as it is well known that serum may remain in the pleural sac for many months without undergoing any important change. Hectic fever has always been considered as more or less characteristic of empyema, but occasionally this disease exists without any considerable constitutional irritation; so that, from the previous history and general symptoms alone, we could but arrive at a probable opinion; more positive indications, however, may be derived from simple inspection of the chest. In cases of empyema, the lower intercostal spaces are frequently bulging to a much greater extent than ever occurs in hydrothorax, whether mechanical or inflammatory; whilst, at the same time, the superficial veins are oftentimes distended and tortuous. These peculiarities are probably owing to the high specific gravity of the fluid distending the intercostal spaces, and at the same time pressing upon the deep-seated veins, thus obliging the venous blood to return to the heart by a circuitous route. Dr. Stokes believes that the intercostal bulging depends more upon imperfect innervation or paralysis of the muscles than upon the mere pressure of the pus; Dr. Roe is also of the opinion that a moderate amount of pus may by its irritating properties cause a relaxation or paralysis of the intercostal muscles, so as to give rise to a greater degree of distension than could be produced by the pressure of a much larger quantity of serum.

[In reference to the cases suitable for the operation of paracentesis, the author remarks:]

In uncomPLICATE cases, and where the amount of pus is so considerable as to cause much distress, we see no good reason why the operation should be delayed. The chief objection urged against the paracentesis is the alleged injurious effects resulting from the admission of air into the pleural sac; but it is now generally conceded that all apprehensions on this point have been, in a great measure, unfounded. In twenty-four cases reported by Dr. Roe, the admission of air produced no detriment, either by its pressure or decomposing influence, and numerous cases of a similar character might be collected from the different periodicals; this view is also in a measure confirmed by the well-known fact that

in the traumatic pneumothorax, from fractured rib or clavicle, the air produces no injurious effect, but is gradually absorbed as the cicatrised lung becomes inflated and restored to its natural position. But even supposing that the objection thus urged was valid, it certainly could be applied with equal force to the fistulous openings resulting from the corrosive action of the pus when abandoned to itself; when the lung has thus been perforated it is no longer susceptible of expansion, but must remain collapsed until the fluid contents of the pleura are discharged, and the fistulous opening healed; on the other hand, when the pus has worked its way externally through the intercostal spaces the openings are often tortuous or ragged, easily obstructed, and frequently associated with necroses of the ribs. An appeal to facts also shows that the operation is fully sustained by experience: of sixteen cases of empyema, reported by Dr. T. Davis, in which paracentesis had been performed, twelve recovered; and of forty-four cases collected and reported by Dr. H. Roe, in the "Medico-Chirurgical Transactions," vol. xxvii., the operation proved successful in thirty-two instances, showing that more than two-thirds, or nearly three-fourths of the whole number recovered. Besides those just alluded to, numerous other successful cases have recently been reported in the various journals both of Europe and this country; and amongst the advocates for the operation may be enumerated many of those best qualified to form a correct opinion in thoracic diseases, such as Forbes, Stokes, Williams, Watson, and numerous others equally entitled to respect upon this subject.

When, however, the empyema is attended with a fistulous opening of the lung, sufficient to allow the pus to escape freely by expectoration, paracentesis is certainly not called for; but when the opening is small, or so obstructed as to prevent the free passage of the fluid, and thus give rise to increased oppression, a counter-opening in the side is clearly indicated; by this procedure not only will the pus be more rapidly and safely evacuated, but the perforation of the lung may heal, and thus allow the collapsed organ to regain its natural dimensions. When tubercles exist, with or without perforation of the lung, the expediency of the operations is, to say the least, extremely doubtful; and the most that can be hoped for from it, under these circumstances, is a temporary prolongation of life. Much of the disrepute which is by some attached to paracentesis thoracis can, in a great measure, be traced to the fact that cases similar to those just referred to, have too often been subjected to this operation.

[The author next speaks of paracentesis in acute hydrothorax.]

It is well known that, as a general rule, pleuritic effusions can be removed by appropriate treatment, such as bleeding, calomel, squill, and

digitalis, the various hydragogue cathartics, diuretics, and blisters; but, occasionally, all these means fail to promote absorption, whilst at the same time the effusion is gradually increasing and threatening a protracted and agonizing death; in such instances nothing but a resort to paracentesis can save the life of the patient, and it is incumbent upon the physician to recommend its performance before the powers of life have so far failed as to prevent the system from rallying after the removal of the fluid. In Europe, and particularly in France, this operation is frequently adopted in cases of extensive and recent pleuritic effusion, and it must not be concealed that, in some instances at least, there is reason to believe it has been resorted to prematurely; but, whilst in this disease as in croup, the operation should only be viewed as a dernier resort, it is still important that it should not be delayed until asphyxia has so far progressed as to materially interfere with its ultimate success. In many cases of inflammatory hydrothorax, the pleura is completely invested by a thick layer of lymph; and, under these circumstances, it is apparent that the fluid contents can be but slowly absorbed, or may even become as it were encysted, and there remain for many months or years without undergoing any important change; in such cases, though delay may not lead to ulceration of the lung or necrosis, as in case of empyema, it is evident that but little is to be hoped for from our therapeutic agents or the expectant plan of treatment; and that, therefore, paracentesis should be resorted to whenever the oppression is very considerable, more especially so, since the longer this operation is deferred the greater will be the difficulty in the lung regaining its natural position.

Dr. Roe reports in all some twenty-six cases of inflammatory hydrothorax, in which paracentesis had been performed, and of these seventeen recovered; showing, at least, that this procedure is not as hazardous as has been by some supposed. Other instances might be adduced to show that a timely resort to the operation might, in most instances, save the life of the patient.

In mechanical hydrothorax, where the effusion depends upon disease of the heart or forms a part of the general dropsy, as in the advanced stage of granular degeneration of the kidneys, nothing but temporary relief could be expected from tapping the chest; the effusion here forms but an incidental complication to a more serious disease which has already impaired the powers of life; and hence it is, that paracentesis is attended with much danger under these circumstances. Dr. Davis reports three cases of this character, in all of which the operation proved fatal; other fatal cases have also been recorded; and hence this practice has been in a great measure abandoned in this form of hydrothorax.

[In regard to the operation itself, the author observes:]

Some discrepancy of opinion still exists as to the exact locality where the puncture should be made; but it is now generally conceded, that the most eligible position is in the fifth intercostal space, about midway between the sternum and spine, or just posterior to the digitations of the serratus major; this part of the chest being generally most free from adhesions, and at the same time sufficiently remote from the other important organs. When the fluid points externally, constituting "empyema by necessity;" the puncture may be made with a lancet in the most prominent and yielding part of the swelling; but, in all other instances, a small sized trocar, such as is used for tapping in hydrocephalus or hydrocele, should be preferred, the point of the instrument being exceedingly sharp, so that the false membranes which occasionally line the costal pleura, may not be carried before it. and thus frustrate the operation. By some, it is recommended that the fluid should be removed as far as practicable at the time of the operation; and with this view, it is urged, that pressure should be made over the epigastrium and side of the chest; but, in regard to this question, much must depend upon the condition of the patient, the character of the fluid, and duration of the disease. When the lung is much compressed and bound down by false membranes, it would not be desirable, even were it practicable, to draw off all the fluid at once, nor would it be prudent to pursue this course in feeble and exhausted subjects, the most that should be done under these circumstances, would be to allow an escape of fluid sufficient to remove the tension and oppression caused by the displacement of the mediastinum and diaphragm, the rest being allowed to flow off from day to day in accordance with the contraction of the chest, the expansion of the lung, and the rallying strength of the patient. In recent cases of empyema or serous effusion, and where there is good reason to believe that the lung is neither carnified or bound down by lymph or false membrane, the fluid may be evacuated at once, since the lung will gradually rise as the superincumbent pus or serum is removed. So long as any pus remains in the cavity of the pleura, the puncture will generally remain open; and it will also be found, that as the tension is removed, the external orifice will no longer correspond with the opening through the intercostal space, so that it is not necessary to render the integuments tense before making the puncture, as has been recommended with the view of forming a valvular opening, and thus preventing the entrance of air. Occasionally, however, the opening is disposed to close, and, under these circumstances, it is expedient that the orifice should be dilated by a small piece of waxed sponge or lint secured by an adhesive strap: some, on the other hand, have preferred

that it should heal, and the operation be repeated from time to time, according to the necessity of the case. In case of more serous effusion there can be no doubt as to the propriety of allowing the puncture to close; for, under these circumstances, the fluid that may remain will frequently be absorbed, or, at least, it can have no injurious effect upon the lung or ribs, as in the case of puriform matter; nature also appears to point out this course, since, in most instances where the chest has been punctured for serous effusion, the wound has promptly healed; whereas, in cases of empyema, it has been known to remain open for many years without very materially interfering with the general health. With the view of effecting a radical cure in cases of chronic empyema, it has been recommended to inject the pleural sac with various stringent or stimulating fluids, such as decoctions of white oak bark, or solutions of iodine; in several instances the fluids thus injected have appeared in the expectoration, owing to the existence of a fistulous communication between the bronchia and pleura, and yet the patients have ultimately recovered.—*American Journal of Medical Science.*

On the Internal Administration of Chloroform in Delirium Tremens.

By RICHARD G. H. BUTCHER, F. R. C. S. I., Surgeon to Mercer's Hospital, &c. &c. &c.

THIS communication exhibits in a marked manner the great benefit to be derived in aggravated cases of delirium tremens, from the internal administration of chloroform in large doses.

The patient, Wm. Magrath, aged 26, a powerful young man, by trade, a wine porter, was admitted by the author, into Mercer's Hospital, June 25th, 1852. When admitted, four days had elapsed from the time of his giving up the stimulus, and he had no sleep during that period. His countenance was particularly anxious, with a wild expression: the pathognomonic symptom, tremor of the hands and tongue fully established. His speech was hurried and uneven; he was quite irrational and wild; pulse 120; surface of the body hot and burning, while his face was covered with perspiration, and his hair drenched in sweat. He was put into bed but would not remain quiet; got up, and kept constantly walking up and down the ward and corridor. He was ordered two grains of calomel and a grain of opium in pill, to be taken every third hour. He had taken three, but each was vomited almost immediately after being swallowed. A draught containing one grain of morphine, two drops of creosote, and an ounce of camphor mixture, to be given every third hour, was next tried, but this

was likewise rejected. If the patient only took a sup of cold water to moisten his parched mouth and lips, it was instantly vomited.

On the following morning, the 20th, his condition was a great deal worse, and the case now assumed a serious aspect. From the irritability of the stomach, opium in any form could not be got to rest upon it. As for the idea of administering repeated small opiate enemata in this powerful, restless, and uncontrollable young man, the practicability of it could not be entertained for a moment. From the satisfactory issue of two cases, reported in the *American Journal of Medical Science* for January, 1852, the same practice was determined on—the internal administration of chloroform.

At ten o'clock this morning, (26th,) one drachm of pure chloroform in two ounces and a half of water was administered. In an hour after swallowing it, the patient became comparatively tranquil, and could be persuaded to lie in bed.

Eleven o'clock :—He began to get drowsy, and slept for periods of ten and twelve minutes at a time. At a quarter before one o'clock, he became fully affected by the medicine, and fell into a quiet steady sleep ; and on visiting him at two and four P. M., he was still in profound sleep, and continued so until seven in the evening. During this long sleep of six hours, he was calm and quiet ; his pulse fell from 120, which it was in the morning, to 96, at which it remained ; his respirations were between 16 and 20 in the minute, and not louder than natural ; the temperature of the body was exalted. All along heat was maintained to the feet, and a pure current of air circulating around him, the windows being kept open. On his awakening, he was nearly quite sensible, and advantage was taken of this pause to administer a full stimulant cathartic, consisting of six grains of calomel and ten of camphor, not only with the intention of freeing the bowels of accumulated matter, but likewise to guard against congestion of the brain. Orders were left in case he should not sleep before ten, to administer half a drachm of chloroform in two ounces of camphor mixture.

27th, ten A. M. :—The patient went to sleep almost immediately

is also increased ; he is hot and burning ; altogether he is excited, and the fear of horrible objects around him has returned. On the presence of those symptoms the chloroform draught was at once repeated. Shortly after, he took a large drink of tea, which was inadvertently left beside his bed, which produced vomiting immediately.

Nine P. M. ;—Since the last visit, the patient has slept at short intervals, for one and two hours at a time ; pulse still up to 110. Ordered the chloroform draught, one drachm to two ounces and a half of camphor mixture, to be repeated.

28th :—After the patient had taken the draught last night, he fell into a quiet sleep, which continued uninterrupted until eight o'clock this morning. He awoke quite collected and rational ; his pulse 80 ; skin cool ; his tongue and extremities quite free from tremor, and he feels in every respect well ; his appetite has returned, and all food is retained on the stomach. Ordered a grain of morphia in an ounce of camphor mixture, to be given at night.

29th :—This morning the patient is quite restored ; he is sitting up eating his breakfast heartily in bed ; in short, he is quite convalescent, and only requires a little nourishment to remove the debility consequent upon so severe a struggle.

In reference to the administration of chloroform in the foregoing case, remarks the author in conclusion, there is one point which solicits our closest attention, namely : the remarkable lowering of the pulse, when the perfect effect of the medicine was produced ; the pulse, in fact, might form the index to direct the practitioner as to the propriety of a repetition of the dose. Again, as a precautionary measure, I consider it desirable to keep heat to the feet, and a current of pure air circulating around the bed and through the apartment in which the patient lies.—*Dublin Medical Press.*

MISCELLANEOUS.

[We copy the following interesting conversation from the *Edinburgh Monthly Journal*, the interlocutors being the conductors of that Periodical ; and as their identity may not be detected by our readers we give the following Programme of the *Dramatis Personæ* :—

<i>Obstetricus</i>	PROFESSOR SIMPSON.
<i>Chirurgus</i>	PROFESSOR SYME.
<i>Medicus</i>	PROFESSOR CHRISTISON.
<i>Physiologus</i>	PROFESSOR DR. BENNETT.
<i>Chemicus</i>	PROFESSOR MACLAGAN.
<i>Editor</i>	DR. WM. ROBERTSON.

COLLOQUIA DE OMNIBUS REBUS.

COLL. V.—DE REMEDIIS NOVIS, SPECIFICIS, DIABETICIS, ETC.

Obstetricus [to *Chirurgus*]. Might a friend venture to inquire what has disturbed your equanimity this evening?

Chirurgus. Even yours would have been unsettled by the gentleman's story, who drove from my door as you arrived.

Chemicus. A tall, handsome, young fellow. I wondered to see him leaving your hospitable gate at such an hour.

Chirurgus. He is not in condition to enjoy hospitality, and came here for a very different purpose. He is one of the

VICTIMS OF MERCURY. Passing through Edinburgh with a mercurial sore-throat, a pocketful of mercurial prescriptions, and a mercurial belt, he felt uneasy travelling with three such unsafe companions, and came to see what I thought of him and them.

Chemicus. He would be surprised to learn that the root of his misfortune lay in his belt and recipes, and not in his throat.

Chirurgus. Very possibly. But I have not yet told you all. Led by incidental circumstances, he had been for some time indulging freely in wine and wassail, and living a life of hard exercise and constant exposure. On expressing my wonder at this, he told me, to my consternation, that the London surgeon, who advised him to poison himself with mercury, had not put him on his guard, or under any rule or restriction, as to diet or regimen. You may judge what reason I had for appearing discomposed.

Chemicus. The traveller has cause to thank his stars and his constitution of "oak and triple brass," that he had not bid adieu to his nose and palate at least. What a fearful amount of misery must arise from the waggon-loads of mercurial pills and potions which are administered in London to all sorts of weak and scrofulous victims of venereal disease! It is a subject of painful reflection to every mind not proof against every humane consideration.

Chirurgus. The *Athenæum* tells us the other day, that medical men "have a vested interest in fever and cholera; their estate consists in the foul places, the bad drains, the putrid heaps of the city graveyards." If this opinion, which is doubtless founded on acquaintance with the sentiments of the author's medical friends—should fairly represent the tone of metropolitan medical ethics, it would be unreasonable to expect the abandonment of the mercurial treatment of syphilis. But we must hope that things are not quite so bad as might appear from the *Athenæum*. In every medical community there must be

numbers of professional men who are not so blinded by the pursuit of gain as to have their eyes shut to the truth, because it may affect their pockets. There are even some bright exceptions to the dogmatic mercurialism of London surgery.

Medicus. Do you mean to tell us, that, after what has been done and written about syphilis and mercury during the last forty years, a non-mercurialist is still the exception in London practice?

Chirurgus. Certainly. Have we not perpetual proof of this in the contents of the London Journals, and in such living illustrations as my belted traveller—whose case, I can assure you, is by no means a solitary one in my observation.

Medicus. This is deplorable. When I first went to London, in 1820, satisfied by frequent experience in our Infirmary here, of the soundness of the non-mercurial doctrine, first propounded by the medical officers of the army, and then systematised and powerfully advocated by Dr. John Thomson, I was shocked to find, as pupil of one of the great metropolitan hospitals, its “foul-ward” patients salivating, many of them for the second, third, or fourth time, and its surgeons ignorant or regardless of the glorious victory over mercury gained by our army surgeons, and conclusively followed up in the North. Returning thither in 1838, I expected to encounter truth at last in the ascendant; but in vain. After the lapse of eighteen years there were the same wards, the same fetid atmosphere, the same mercurial victims—other surgeons, but the same ideas. Is it possible that fourteen years more have wrought no decay in that old donjon keep of prejudice?

Physiologus. I can add my testimony that matters were in the same state in 1833, having found in its attics the same sort of patients, and spit-boxes, and atmosphere, and notions that year, while a pupil, as you did in 1820.

Obstetricus. When *Chemicus* and I accompanied the late Mr. Bransby Cooper at his visit in Guy’s Hospital in 1836, we ascertained that every surgical patient in the hospital was taking mercury in one shape or another; and there is no reason to suppose that matters are any better yet, so far as syphilis is concerned.

Chirurgus. The more need, then, for us to show the contrast; which the Managers of the Infirmary have just put it in our power to do. The great additions now made in the new buildings will afford ample accommodation for venereal patients, who for many years have been excluded from the hospital. We shall thus enable the student, as well as others, to learn from personal observation the truth of the principles, which have been so long taught and practised in Edinburgh:—that “Hunterian

chancres" and other primary affections may be cured by simple local treatment, without any mercury; and that in most secondary cases, mercury, instead of being an antidote for venereal infection, is another poison, and nothing else.

Editor. But would you consider so slight a matter as a Hunterian chancre a fit subject for hospital treatment?—it is such a trifle now under the non-mercurial method.

Chirurgus. The more occasion to prove to our unbelieving neighbours that it is so.

Editor. And where will you obtain in Edinburgh secondary cases of such severity as to instruct pupils or convince sceptical Southrons?

Chirurgus. Edinburgh can still supply a few of indigenous growth, thanks to one or two surviving home believers in the specific virtues of mercury against syphilis; and any want of native produce will be amply made up by arrivals from other parts still groaning under the mercurial curse.

Editor. To what do you ascribe so great a disregard of advancement in therapeutics as this dogged perseverance of our London brethren in the mercurial delusion?

Chemicus. To metropolitan indifference for improvement originating from without;—Roman contempt for everything barbarian.

Physiologus. Don't you think it may be rather referred to the prevalence there of a blind, degrading faith in Specifics, of which this mercury in the cure of syphilis has long been the chief?

Medicus. To both the one and the other concurrently, but at bottom to an imperfect, unsound, therapeutical education.

Chemicus. Why look farther than to metropolitan apathy towards "outside" improvement. For example, there has not been a single improvement of any importance made here in the treatment of diseases during the last five and twenty years that has been admitted into London practice, except tardily and imperfectly, if admitted at all.

Medicus. That is a bold proposition, yet true, and which, I doubt not, you can substantiate, if it be called in question. It may well rouse our metropolitan friends to serious reflection. But meanwhile, look a little beyond this state of things, and I think you will find its origin to be mainly a radical defect of tuition in therapeutics.

Chemicus. It was a marvellous step backwards, when in 1850 the whole Boards of medical education in London, by incomprehensible common consent, reduced their requirements in *materia medica* to a course of lectures of three months.

Medicus. A heavy blow and discouragement truly to therapeutics. And more than this:—it is a proof to me that the nature and scope of therapeutics have not yet been duly appreciated in the London schools, or by the Boards of education there.

Is it possible to estimate too highly the importance of this branch of medical science? What is the ultimate object of medicine but the cure of diseases? What then ought to be the ultimate object of all medical education, if it be not the knowledge of the means of cure? To what purpose should we teach anatomy, physiology, chemistry,—why pathology and diagnosis,—if we did not possess remedies, medical and surgical, which we could put into the hands of students when so instructed? But fortunately we do possess them,—indeed in too lavish profusion. And the best of them are hard to obtain, difficult to know variable in quality, puzzling to select, nice to prepare, but above all most wonderful in action,—energetic, multifarious, complex, versatile, and singularly influenced by co-operating circumstances.

The ancients knew all this: Therapeutics, indeed, with semeiology, constituted almost their whole circle of medical science. The early modern physicians knew it also: Witness Matthioli's great folio *Commentationes*, which went through eleven editions during half the sixteenth century. Alston, the first British professor of materia medica, knew it. He stated in this University in 1738 with a course of lectures of six months in duration, and I have never heard that either professor or student has since found the period too long. In all great medical schools of the present day, except one, the same opinion has prevailed. In Britain, under the united name of Materia Medica, on the Continent under the separate heads of Pharmacy and Therapeutics, the means of curing diseases are taught in just equilibrium with the other branches of medicine. In London alone has it entered into the understanding of man to conceive that pharmacy, therapeutics, diet, and regimen may be mastered by a student in sixty lectures. When, indeed, University College, and afterwards King's College, were founded on the model of that of Edinburgh, an attempt was made to place the materia medica on a satisfactory footing, and other London schools followed the example. But after a twenty year's trial the attempt, it seems, has signally failed: and in 1850 both the London College of Surgeons and the Apothecaries' Company reduced their requirements in materia medica to the old miserable standard.

Chirurgus. Possibly they thought that all which is at present positively ascertained on the subject may be taught in three months.

Chemicus. If professors of medicine and surgery were to teach only what is positively known in their several departments, few of them would require more time. It is the very uncertainty of materia medica, and

especially of therapeutics,—the number of doubtful points to be discussed, the quantity of falsehood to be cleared up, the amount of fashionable humbug to be exposed, that entail the necessity of deliberate tuition.

Medicus. Exalté so. But unfortunately, in the London system there has long been no time left for anything but hasty tuition in this and some other equally important branches. The dominant influence of the College of Surgeons as an educational body,—the partial, narrow views of their Council, who now, as in time past, will look to nothing but anatomy and surgery as deserving of earnest attention,—have been the main cause of this. With the Council of the College, Anatomy and Surgery have been everything ; at least every thing else is little more than nothing. Even Physiology and Pathology by their regulations mere offsets or appendages to anatomy, and to be taught as branches of it,—a very natural error for a body composed entirely of hospital surgeons and lecturers on anatomy and surgery, and in which no other branch of medical science or art is represented. And as for the Apothecaries' Company, it is easy to see why they do not encourage the science which they ought peculiarly to foster ; they cannot even yet overcome the old hallucinations that apprenticeship is education, and that a student, who is constantly handling drugs, must necessarily come to know all about them.

The consequences of all this might have been foreseen. What their directors undervalue, students do not prize. What the magnates of the profession do not cherish, the masses neglect. Therapeutics has ceased to be an object of inquiry, or is cultivated without method or principles. No one seems to care to improve our knowledge of old remedies. There is an incessant thirst for new ones. But these are sought for by the rule of chance ; and not so much because they are needed for the purpose to which they are applied, and for which there is no want of acknowledged means ; but apparently to satiate a morbid public craving for novelty, or to serve as a periodical invitation and advertisement. A wide-spreading empiricism broods over medicine, penetrating even into high places ; and quackery of all kinds grows rank under its shade, pervading even the regular profession.

Obstetricus. You take a gloomy view of things. But the very magnitude of the evil will by and by work out its own reformation.

Medicus. It is not easy to avoid despondency, when one beholds, in relation to so essential a branch of medical science and practice, the ignorance of the profession, the advance of quackery, the sneers of the public, and the apathy of our medical rulers.

Chemicus. “ *Appropos des Charlatans,*” I see.

A NEW HOMŒOPATHIC PETITION against the University of Edinburgh

has been presented to the Town Council, its Patrons. What do they want now?

Editor. The same favour as formerly ;—that the Patrons shall compel the University to graduate homœopaths. But the Patrons have wisely shelved the petition by transmitting it *simpliciter* for the perusal of the Senate. It is a pity however they did not see they were merely made a cat paw of,—being set to talk about homœopathy at the Council Board, and thus to issue unwittingly a homœopathic advertisement. The originators could have no other aim with such instruments as their petitioners.

Chemicus. Who are they this time?

Editor. Nine hundred and fifteen decent tradesmen, operatives, and servants, with a remarkable predominance of the feminine gender, and especially a large assortment of housekeepers, cooks, and chambermaids. On this occasion there is neither lord, nor admiral, nor general, nor churchman.

Obstetricus. Is not the Archbishop of Dublin among them?

Editor. No. But they quote him in the body of their petition as one of their backers.

Chirurgus. Then let us leave the matter with the Archbishop and the chambermaids. It is in very safe keeping in their hands.

Chemicus. Reverting to the pestilence of new remedies with which medicine has for some time past been assailed, is there no short-hand way of bringing them to trial and condemnation? No lifetime is long enough to test them in the ordinary way.

Medicus. Test them, in the first place, by the principles of therapeutics, and most of them will be at once disposed of. We have only to look to the classification of known remedies, according to external characters and composition, in order to see that very many modern novelties in the materia medica are mere delusions. For remedies so classified possess generic actions, proper to each group, with which the actions of unknown individuals of the same group must in general coincide.

Chemicus. But anomalies in action exist among known individuals of the same natural group. Why not among the unknown?

Medicus. In a more advanced state of therapeutic science these anomalies will disappear one after another. They will be found to be parts of subordinate and intercurrent laws, which may direct the choice of remedies as much as the fundamental laws of the action of natural groups. For even already the existence of these fundamental laws is so well established, and many of the exceptions are so well accounted for, that a strong presumption of the value of a supposed new remedy may be formed by one who has made this interesting subject his study.

Editor. And what is to be done when this test fails, or is inapplicable in the present state of our knowledge?

Medicus. Make trial of such remedies by all means, and dispassionately; but with jealousy, if their alleged virtues violate the general rule of agreement in family properties; and above all, if they are put forth as specifics,—a term which appears to be used in the present day whenever no reason can be assigned why remedies act, or why they were resorted to.

Chemicus. I admit that when a remedy is spoken of as a specific, the word simply means, that we know nothing of its action. But do you think that, as a general rule, we are likely to be directed to new remedies by the consideration of their family position?

Medicus. Not for the present perhaps. But such will be the common rule no doubt, when the medical profession shall, for some five-and-twenty years, make it their duty, in all civilised countries, to throw their whole force on the study of therapeutics, as has been done with such signal success for pathology during the twenty-five years that are just past.

Physiologus. And meanwhile we are even already not without valuable instances of therapeutic theory successfully guiding practice in the choice of new remedies. Take chloroform for an example. The properties of chloroform were not discovered by accident. Sulphuric ether having been ascertained to be an anæsthetic, all toxicological experience and theory led to the conclusion, that other ether and etheroids would possess similar properties; and, accordingly, several such substances were found out, and chloroform at the head of them all for energy, safety, and facility of administration.

Medicus. Another excellent illustration is the gradual progress by which we have arrived at the most modern.

TREATMENT ON DIABETES.—Having attained something very like a true pathology of the disease,—having discovered that it is not a disorder of the kidneys but a depraved digestion,—and having ascertained the chemical composition of all the principal articles of man's food,—by theory it was at once inferred, that a number of old remedies in the shape of physic, and many new ones still proposed from time to time, may be allowed to sink into oblivion. By theory, too, we know that a peculiar regulation of the diet constitutes the only sound treatment; and we know also what articles compose that diet,—thus already making a great stride towards the cure. For, by the substitution of gluten-bread and cakes made of bran, butter, and eggs, for ordinary bread and other farinaceous food,—and by allowing such vegetables as spinage, cauliflower, brocoli, and cabbage which contain little or nothing capable of conversion into sugar,

we have rendered a permanent nitrogenous diet practicable, which it was not before,—and so we effect sometimes a cure, and often a most material amendment, which may be maintained indefinitely by due dietetic observance. .

Obstetricus. Have you seen any one recover entirely in that way?

Medicus. A gentleman of 65 recovered entirely three year's ago, and continues well, unless he exceeds at table ; and another of 25, and a third a boy of 13, are greatly improved,—the latter, indeed, might be thought in all respects well, except that the urine continues saccharine.

Obstetricus. Although we do not now know any medicine to improve this state of things by directly controlling the morbid peculiarity of digestion which constitutes the disease, who knows that theory may not soon direct us to one ?

Medicus. It is much more likely to do so than empirical trial, that is, accident,—which has been hitherto followed as the main guide. Indeed, I know not but that it may have actually pointed out a remedy already. At least I have just received some very apposite information, which may interest you, relative to an entirely new remedy, derived strictly from theoretical considerations,—namely, the

TREATMENT OF DIABETES BY RENNET, which seems to promise well. Dr Gray of Glasgow was lately induced to make trial of this substance by the following theoretical views. Diabetes consists in the process of digestion stopping at the conversion of other organic principles into sugar, which cannot be oxidated in the lungs, and is therefore thrown off as excrementitious by the kidneys. But rennet out of the body converts sugar into lactic acid, and it may therefore do so within the body likewise. Should such conversion take place, however, the disease will be brought to an end, if Liebig be right in his opinion, that lactic acid is one of the principles of the organic world which can support respiration, by becoming oxidated in the lungs. Resting on these views, Dr Gray tried rennet in the case of a patient so much reduced by diabetes, of at least twelve month's standing, as to be unable to work. Dietetic treatment had been only of partial benefit. Medicines of various kinds had been of little use. The urine was copious, 1045 in density, and strongly saccharine. On the 30th of last July, a teaspoonful of rennet, prepared as for the dairy was given thrice a-day. In eight days the density of the urine was reduced to 1025, and it contained lactic acid, but only a trace of sugar. In twenty-five days the quantity was sixty-four ounces, the density 1022.5, and the sugar gone entirely. In six weeks the urine continued free of sugar ; the man had gained

weight considerably ; his strength was such as to enable him to return to his employment ; he thought himself in as good health as before his illness ; and nevertheless he had been ten days on nearly his usual allowance of wheaten bread.

Now I am far from meaning to say, nor does Dr. Gray say, that rennet is thus proved to be a remedy for diabetes by its apparent success in a single case. But it is surely the most feasible remedy that has been proposed for many a day ;—so feasible, that I hope many will give it at once a fair trial, which is his object in allowing me to give this brief notice of it to you all. Should it prove as successful in other hands as in his, we shall owe another therapeutic discovery to therapeutic theory.

Obstetricus. Were all inventors in the *Materia Medica* as well trained in therapeutics as Dr. Gray appears to have been, we should have fewer new remedies to deal with, and probably more good ones. It is certainly a striking confirmation of your criticism on London therapeutics, that, among the many new London remedies, not one has been announced for some years, which has stood the test of experiment elsewhere.

Medicus. A very natural consequence of the contempt manifested everywhere in London for therapeutic instruction. By the way I forgot to advert to a most extraordinary circumstance connected with the discourtenancing of this branch of medical knowledge by the London boards of education,—viz., the complete and universal silence and submission with which their degrading regulations have been received. Not a single teacher has publicly uttered a single remonstrance. Not a journal has issued one word of criticism. Therapeutics, it seems has not a patron in the whole metropolis. But enough of this for the present.

Physiologus. You mentioned a little ago that we had arrived at something like a sound pathology of diabetes, and that it seems to be a disease of digestion. But you are aware that this view may require revision, since the recent discoveries of Mr. Bernard, relative to the functions of the liver, by which he has proved that.

SUGAR IS A NATURAL PRODUCT OF THE LIVER.

Medicus. That is possible. We do not yet see how the singular observations of Bernard are to affect the pathology of diabetes ; but that they must have important bearings on it we can scarcely doubt. His inquiries have received too little attention in this country as yet, You have studied them carefully, and indeed have witnessed his leading experiments. Will you give us some account of them ?

Physiologist. Within the last two years M. Bernard has brought forward a theory as to the production of sugar in the blood, which is supported by an amount of experimental proof that cannot be easily set aside. He admits that sugar may be formed in the process of digestion, and that a certain amount of it may, as the result of absorption from the alimentary canal, find its way into the blood. But he has shown that in man and animals of various orders, even so low down in the scale of creation as acephalous mollusca—if they are even fed entirely upon flesh—the blood from the hepatic vein invariably contains sugar. It is the result, however, of digestion of the food: for it disappears when an animal is starved, and it re-appears when the food is again given. He further observes, that sugar is found in the liver independently of the nature of the aliment. In dogs fed exclusively on animal food for several months, though he could find no sugar in the intestines or portal blood at its entrance into the liver, he always found it in the liver itself, and in the hepatic vein. In the spring of 1851 M. Bernard was good enough to perform the following experiment in my presence, during a visit I paid to Paris. A ligature was tied round the vena portæ where it enters the liver, and the dog was immediately killed by dividing the medulla oblongata. On opening the abdomen, the portal blood below the ligature, and blood from the hepatic vein, were immediately collected in separate glass vessels; and it was at once demonstrated, by applying the same test to both, that the latter contained sugar in abundance, but the former none. Sugar was also found in water in which a piece of the liver had been boiled in chips. Such an experiment seems decisive of the fact, that sugar is formed in the liver, and not conveyed to it with the blood through the vena portæ. Subsequently M. Bernard found that sugar is formed even by the foetal liver; for he detected it in that organ both in mammals at different stages of intra-uterine life, and in birds before being hatched.

In all cases the sugar so formed presents the characters of grape-sugar. In all cases it is quickly decomposed on coming in contact with the blood and animal tissues. Hence, even in the livers of animals, it

ster death.

section of both pneumo-gastric the nervous system, destroys the most interesting, however, is most pointedly on the patho- lot of the pneumo-gastric nerves ceases the formation of sugar the blood that is secreted with induces artificial diabetes. M.

Bernard showed me this remarkable experiment. Having squeezed some urine from the bladder of a healthy rabbit, he proved that it did not contain sugar. He then passed a needle through the skull in such a way as to irritate the pneumo-gastric roots, and let the animal rest for an hour after the slight convulsions excited by the injury. Sugar was then found largely in its urine. On then killing the rabbit, it was found that the needle had wounded the intended part. I have since repeated this interesting experiment, with the same result ; and so has my former assistant, Dr. Drummond : so that there can be no doubt of the fact.

Medicus. It has also been lately repeated with success in many trials by Dr. Schrader, as announced to the Royal Society of Sciences at Göttingen in the beginning of the present year.

Physiologus. M. Bernard has since informed me of the results of his farther researches on this subject. He has now discovered, that, although section of the pneumogastric nerves destroys the formation of sugar in the liver, it is restored by artificially irritating their cut extremities ; and that diabetes is produced exactly in the same manner as by irritating their origins in the brain. He was therefore led to conclude that the nervous action on the liver, necessary for the secretion of sugar, is not direct along the pneumogastriacs, as he formerly supposed, but indirect, or reflex, through these nerves as incidents, the medula oblongata as the centre, and the spinal cord communicating with the solar ganglion as the excident channels of communication. And following out this theory, he likewise found that whenever the respiratory function is violently stimulated, sugar appears in the urine, and that whenever ether or chloroform is given, a temporary diabetes is occasioned. It follows that the formation of sugar by the liver is analogous to those kinds of secretion which are produced by reflex action through the agency of a sympathetic ganglion, and the influence of certain stimuli—such for instance, as the secretion of saliva caused by the presence of sapid bodies in the mouth, where the sensitive and motor branches of the fifth pair operate in a reflex way through the agency of the sub-maxillary ganglion. In this case, stimulating the tongue is necessary to cause a flow of saliva ; and in like manner, a certain stimulus of the lungs (normally by the air) is necessary to cause the formation of sugar by the liver. M. Bernard further supposes, that in the same way that the lungs thus act by reflex nervous influence on the liver, so does increased action of the liver act upon the kidney ; consequently, that the sugar, produced in excess by one organ, is excreted by the other.

Such is the present state of the question. Various pathological considerations might be stated which seem to show that Bernard's liver

theory of the origin of diabetes is as consistent with facts as the theory which ascribes it to disorder in the stomach. But further inquiry is necessary before we can positively settle the real cause of that very mysterious disease. Meanwhile, it is not easy as yet to see how the discoveries of Bernard will enable us to improve the treatment of diabetes, unless the well known symptom of dryness of the skin, by exciting the lung to increased transpiration, be connected with the cause of the disorder, in which case diaphoretics, though they have been often used with some benefit, would be more strongly indicated. But I think something will be learnt on this head ere long.

Editor. Gentlemen, I must beg you to excuse me for breaking up this colloquy so soon. I must prepare for an early start to Rotterdam.

Physiologus. And I to Paris.

Chemicus. And I to the Doune of Rothiemurchus.

Chirurgus [*aside*]. And *Medicus*, *Obstetricus*, and I, to the top of The Cobbler.

Edin. Monthly Journal.

Canada Medical Journal.

MONTREAL: NOVEMBER, 1852.

We have delayed the publication of this number of the Journal in order to lay before our readers the announcement of the recent appointments in McGill College, but as there is no prospect of matters being brought to a close until the issue of some intrigues is ascertained, we cannot delay any longer. Suffice it to say, that as usual, irregularity and precipitancy have characterised the proceedings of the Faculty, and that as heretofore, though checked by the Governors, they have been successful enough to carry their measures in defiance of the opinion so generally expressed both privately and publicly by the profession of this city. From all that has occurred, we can, however, discover some facts that may be interesting to those of our readers who are about attending the practice of our hospitals, and it is this, that there is but little surgical practice in the Montreal General Hospital. There is no opportunity there for teaching that department—no inducement to a surgeon to devote himself to Clinical Surgery. Where are the proofs of this assertion? They are furnished by the movements of the faculty. The chair of Clinical Medicine became vacant by the resignation of Dr. Sewell, and instead of the vacancy being announced to the profession, the Governors have sanctioned a hole and corner proceeding by which Dr. Crawford, who had lectured on Clinical Surgery for some years, exchanges that chair for Clinical Medicine. Now, let us inquire why this sagacious surgeon has made election of Clinical Medicine. Is it not because he has never had a field for teaching surgery in the Hospital?—is it not because he has never had cases to lecture upon?—is it not because he has been obliged to spin out his course with subjects purely medical. How do *we* happen to know these facts? Because we have been a lecturer on Clinical Medicine to the College—because we did refuse the chair of Clinical Surgery, on the grounds that there was not sufficient material in the Hospital for the purpose of a clinical course—and moreover, we know the fact from the circumstance of our private clinical course given in 1849-50, being attended by more than double

the number of students who attended the University Clinical Course in the Hospital, and because we performed more operations in our private practice than the whole staff of McGill College performed in both their Hospital and private practice.

The Montreal General Hospital is equal to any on this Continent as a school of medicine, but surgery is rarely witnessed within its walls. If this has hitherto been the case, what prospect has that Hospital of now obtaining a character for surgical practice, seeing that St. Patrick's Hospital so far outstrips it in public estimation and in the good opinion of the classes whence the inmates of an hospital are usually furnished. If it had no reputation when alone, it can not expect much increase now, and the resignation of one of its oldest professors of a surgical chair for one of medicine, is an exceedingly significant movement and one which clearly establishes the accuracy of the statements we have made. Indeed we cannot see how the surgical clinic was given during the months of February, March and April of the present year, for the quarterly report of the Hospital furnishes the following as the list of operations performed, to witness which, students have come from distant parts of the Province :—

Bleeding,.....	
Cupping,.....	1
Fractures (reduction of).....	3
Issues,.....	3
Teeth, drawing of,.....	50
Minor Operations,.....	37

In the name of wonder, what were the *minor* operations, when bleeding, cupping, issues and tooth drawing, were *capital* ones, and were considered worthy of special notice? And as only one-half of the above daring operations were performed by the College Lecturer, we are not astonished of his deserting so barren a field and seeking refuge in medical studies. We shall not permit ourselves to indulge in a prediction as to the future prospects of surgical education at that Hospital. The advantages held out to the students are quite peculiar and indeed quite different from what are promised them at all other universities in Europe or America.

Quebec Marine and Emigrant Hospital.—The rumour concerning the appointment of Messrs. Dunscombe and Parent to inquire into the affairs of the above Institution, was unfounded. The Government has since then, formed a Commission composed of Drs. Nelson and Mac-Donnell, of Montreal, and Mr. Perrault, Advocate, of Kamouraska, to whom that important investigation has been entrusted.

CANADA MEDICAL JOURNAL.

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MONTREAL: DECEMBER, 1852.

No 10.

ORIGINAL COMMUNICATIONS.

ART. LI. — *Essai sur la nature et le traitement du Choléra Asiatique, basé sur l'autopsie et la clinique*, par L. F. CHAPERON, membre du Collège des Médecins et Chirurgiens, du Bas-Canada.

(Suite et fin.)

RÉCAPITULATION.

Les symptômes de cette maladie à ses diverses périodes ; les apparences morbides sur ses victimes ; les observations cliniques tendent de plus en plus à affermir chez moi l'opinion conçue : .

1 ° Que le siège primitif de la maladie est l'estomac ;

2 ° Que la suppression absolue de la digestion en est la cause immédiate ;

3 ° Que les injesta ainsi laissés sous l'action inhérente de leur simple décomposition, déterminent sur la membrane muqueuse les symptômes de la première période ;

4 ° Que cette source d'irritation varie selon la qualité et la quantité des injesta ;

5 ° Que les symptômes de la seconde période, ne sont qu'une aggravation de ceux de la première période, résultant de l'action croissante de la masse irritante ;

6 Que cette irritation détermine des contractions spasmodiques irrégulières des sphincters œsophagien et pylorique, des parois des conduits pancréatique et cholédoque communs, et des parois même de l'estomac ;

7 ° Que la suppression des sécrétions est simultanée, isochrone et subordonnée à l'irritation ; qu'elles résultent des contractions spasmodiques, qui elles-mêmes cessent de pair avec l'irritation, dès que sa cause est détruite ou annulée ;

8 ° Que cette contraction spasmodique est analogue à la contraction des sphincters de l'anus dans la dyssenterie ; que sa cause déterminante est aussi analogue, dépendant d'un corps qui devient de plus en plus irritant au fur et à mesure, qu'il acquiert par un trop long séjour, des qualités

irritantes ou anormales, ou plutôt qu'il perd ses conditions primitives ;

9 ° Que cette contraction spasmodique s'oppose mécaniquement à l'expulsion par vomissement, des matières solides, eu égard à leur volume, de là le vomissement séreux ; qu'elle s'oppose, de la même manière, à leur égression par l'orifice pylorique ;

10 ° Que la perte extraordinaire et subite qu'éprouve le sang dans sa partie séreuse ou saline, le rend impropre à la circulation, à la respiration, et à la restauration des diverses sécrétions, incapable, impropre à être décarbonisé durant son passage devenu très difficile à travers la fine texture des cellules aériennes, qu'il tend à engorger de plus en plus : de là, congestion pulmonaire, cérébrale, ou plutôt générale, injection de la partie fibrineuse du sang, dans tous les vaisseaux capillaires ;

11 ° Qu'il est de nécessité indispensable, de rétablir simultanément : la chaleur animale, la circulation (réaction), les sécrétions, les fonctions organiques, en réparant la perte subie, détruisant la cause excitante, par l'application tempestive, d'un remède efficace ;

12 ° Que la modification que j'ai adoptée, que les remèdes préférés, me paraissent propres à remplir plusieurs buts essentiels, savoir : stimuler fortement ; diluer la masse alimentaire ; neutraliser sa fermentation accessante, ou putréfaction incipiente ; activer le travail de l'estomac (la chimification), en suppléant au défaut des sucs gastriques ; activer indirectement l'ingression du bol alimentaire dans le duodénum ; suppléer au défaut des sécrétions biliaires et pancréatiques en fournissant les bases essentielles, en détruisant la source d'irritation, cause de tout le désordre ; fournir au sang le liquide et les bases qu'il a perdues ;

13 ° Qu'une transpiration surabondante, qu'une soustraction subite de carbonique par le froid, sont également causes prédisposantes, par l'atonie qu'elles peuvent occasionner ;

14 ° Que la cause excitante même détruite, la cure n'est possible, qu'en raison de la susceptibilité nerveuse ; et que dans le cas où les secours de l'art auraient été tardifs, des chocs galvaniques pourraient être utiles.

La 12^{me} et 14^{me} proposition paraissent demander de ma part, afin que l'on puisse plus facilement saisir mes vues, certaines explications que je vais m'efforcer de donner aussi succinctement que possible, selon l'ordre qu'elles occupent.

Magendie, Cheireuil, Chaussier, Réaumur, Spallanzani, Thénart et autres chimistes modernes, paraissent d'accord, quant à la composition chimique des sucs gastriques, celle de la bile et du fluide pancréatique.

Du premier fluide, ils disent : " Qu'il est légèrement visqueux, con-

“ tient beaucoup d’eau, de mucus, de sels à base de soude et d’amonia-
 “ que, et de l’acide lactique, dit de Berzélius ; qu’il est légèrement
 “ acide.”

Du second : “ Qu’il est composé d’eau, contient du picromel, une
 “ matière résineuse jaune, de la soude, du phosphate de soude, du
 “ chlorure de soude et potasse, du sulfate de soude, du phosphate de
 “ chaux et une teinte d’oxide ferrugineux.”

Le fluide pancréatique, à-peu-près analogue à la salive, contient, disent-ils : “ De l’eau, du mucilage, de l’albumine, du muriate de soude
 “ du phosphate de chaux et d’ammoniaque, &c. ;” ce sont conséquem-
 ment tous des sels à bases alcalines, et la physiologie moderne les regarde
 comme indispensables à la solution que doivent subir les aliments dans
 l’estomac, pour les convertir en chyme, et pour effectuer également
 dans le duodénum cette précipitation qui doit convertir ce dernier en
 chyle.

Quoique la présence, dans le sang, de ces différents sels, fut depuis
 longtemps reconnue, les fameuses découvertes du Dr. Wm. Stevens durant
 ses essais sur les qualités du sang à l’état normal, ont établi : que le
 sérum contient toutes les parties salines du sang, que le crassamentum
 n’en contient aucunement et pour prouver que sa couleur était
 due à la présence de ce fluide, une petite quantité de muriate de soude,
 nitrate de potasse, ou aucun des sels alcalins, lui rendait sa couleur
 après la séparation du caillot. L’expérience fut poursuivie sur ce
 fluide pris du cœur d’un patient mort de fièvre jaune ; sa nature était
 tellement changée, sa couleur tellement foncée, qu’à peine pouvait-on
 le distinguer de la substance noire évacuée par l’estomac (black vomit)
 et en y ajoutant les mêmes réactifs, il acquerrait sa belle couleur
 artérielle.

Le Dr. S. inférant de là : que dans les mauvais cas de fièvre, la
 perte de la partie saline était la cause de la dissolution du fluide
 réparateur, s’efforça de réparer cette perte autant que possible, par
 l’administration de sels alcalins ; et il ajoute, “ que lorsque cette perte
 “ se trouve ainsi réparée, l’état d’excitation de la 1^{re} période étant
 “ diminuée, avec une diète convenable, les mauvais symptômes se trou-
 “ vent presque détruits.” “ Ces sels, dit-il, ne fatiguent point l’esto-
 “ mac, ils rétablissent la sécrétion urinaire, agissent comme doux laxa-
 “ tifs, tandis qu’une grande portion rentre dans le torrent circulatoire
 “ et conserve le sang, jusqu’à ce que la fièvre soit disparue, ou soit du
 “ moins mitigée.”

Le Dr. Géatrax, de Trinidad, qui suivit un traitement conforme aux
 vues émises ci-dessus, eut le bonheur sur un nombre de 850 patients,
 dans un Hôpital militaire, de n’en pas perdre un seul (Fièvre jaune).

Le Dr. Stevén's suivit un traitement analogue durant le Choléra ; il donnait en premier lieu, un seidlitz dans le but de diminuer l'irritation gastrique ; avec une emplâtre de moutarde sur l'épigastre ; et des frictions aux membres, contre les crampes ; avec applications chaudes aux diverses parties du corps.

Le principal remède se composait, comme suit :

R Sodæ Bi-C," 3ss,

Sodæ mur, 3i,

Potassæ gr. VIII.

On l'administrait dans un gobelet (tumbler) d'eau froide, immédiatement après le seidlitz.

On répétait cette dose tous les quarts d'heure ou demie-heure, selon le besoin, jusqu'à réaction parfaite.

En outre de tems à autres, les poudres effervescentes, avec excès d'alcali ; quelquefois un énéma de muriate de soude.

Beaucoup de patients recouvrèrent la santé, *dit-on*, sous ce traitement ; mais il est bon de remarquer, qu'il s'agissait alors de traiter des patients durant la première période.

Dans la seconde période, on pratiquait l'injection saline dans les veines ; mais les résultats de cette pratique, ne furent pas bien encourageans.

On verra donc définitivement que les idées précises de Stevens relativement à la nature de la perte liquide du sang, ne viennent que collatéralement à l'appui de mes convictions, sous ce rapport seulement ; et qu'au reste, la théorie que je propose, d'après une série de faits observés, mis en rapports mutuels, embrasse un ordre d'idées différent essentiellement tant au reste de sa théorie, qu'au traitement qu'il paraît avoir suivi. *

TRAITEMENT DE LA 1^{re} ET 2^{me} PÉRIODE.

La médecine universellement, a semblé croire que cette terrible maladie était de nature putride, supposant d'abord que quelqu'un des éléments de l'économie animale, rentrait alors dans un état de putréfaction, et pour détruire cette cause supposée, elle a fait quelquefois choix d'antiseptiques. Dans plusieurs cas, leur administration fut très utile sous certaines circonstances, dans un état peu avancé de la maladie, quoiqu'administrés sous une fausse impression, l'effet étant confondu pour la cause qui était précisément de même nature.

Ceci pourrait expliquer entre autres ces cures à l'eau froide : car il est notoire que certaines eaux (non réputées minérales) sont fortement

* La suite de l'explication promise, i-e quant à la 14^{me} proposition, précède l'Hygiène, voyez page 585 ; elle aurait dû faire suite, i-e, précéder le traitement de la première et deuxième période.

chargées de sels calcaires ou de terres absorbantes qu'elles tiennent en solution. Comme antacides et diluents, elles ont pu délayer la masse alimentaire, neutraliser son acrimonie, et promouvoir par là (en faisant disparaître l'irritation) le travail des organes réparateurs.

Les sels alcalins et calcaires sont considérés comme les meilleurs anti-septiques et les plus propres à arrêter la putréfaction végétale ou animale. Les carbonates surtout, paraissent les meilleurs anti-putrides. Ils me paraissent être les agents indispensables à la cure du Choléra Asiatique, à toutes ses périodes, vû que cette classe de remèdes fournit aussi un des plus puissants stimulants anti-spasmodiques.

Il est vrai que depuis longtemps, durant le Choléra, on se sert du spiritus ammoniac fort, "vel aromat," comme stimulant diffusible, durant la 2^{me}. période à la dose de Gttes. X, XV, vel 3ss, tous les quarts d'heures ou dix minutes, pour rétablir la réaction ; c'est le seul effet que l'on ait paru vouloir en retirer.

Dans une multitude de cas où l'on aurait sans doute réussi à opérer une cure, en faisant en même tems usage du carb. d'ammoniaque à la dose de gr. V. vel X. à de courtes intervalles, on a malheureusement failli.

Décidément, ce sel offre de grands avantages comme stimulant, anti-spasmodique et anti-putride. Dès qu'il a rempli ces diverses indications, on devra en discontinuer l'usage ; car il ne faut pas stimuler inutilement, surexciter. Quelques doses pour l'ordinaire suffisent^o. On devra en même tems se servir du sinapisme à la région épigastrique, pour parer au vomissement, du bain chaud quand on peut le commander, de formentations à l'abdomen, du bain de pieds chaud, de briques chaudes, sacs de sel ou de sable chauds, bouteilles d'eau chaude aux pieds, le long des membres inférieurs, et du corps en entier ; avec forces couvertes de lit, peaux de cariole, &c. ; en un mot, employer les diverses applications chaudes, pour rétablir la chaleur animale, rétablir la réaction ; et les continuer, jusqu'à ce que le patient ressente visiblement un état de relaxation parfaite, un bien-être

ants, stimulants, et anti-spasmodiques.
sont anti-septiques et agissent en ab-
tréfaction.

lorsqu'ils forment de nouvelles combi-
naisons, un doux stimulant stomachique,

anti-septiques toniques et stimulants,
soit en infusion, décoction, teinture

re. 2^{me}. et 3^{me}. période ; ce n'est qu'a-
lors que la maladie a
elle que diarrhée ou dysenterie qu'il

général : et ce, durant la première aussi bien que durant la seconde période.

Quant au bi-c-de soude, il devra dans tous les cas, dans toutes les phases ou périodes de la maladie, constituer la base des breuvages ou infusions usités, à la dose d'environ 3i ou 3ij à la livre.

On peut l'administrer séparément, ou en combinaisons avec des toniques, des stimulants, des astringents, &c.*

Le carbonate de potasse, ne peut suppléer que très imparfaitement à celui de soude ; mais à la vérité le tartrate de potasse fournit un excellent laxatif durant la 3^{me} période, ou le traitement de ces cas exceptionnels.

Les infusions aromatiques, telles que celle de menthe poivrée, de gingembre, de canelle, de muscade, de cloux de girofle, &c., me paraissent les breuvages les plus convenables.

On devra les présenter au malade pour apaiser la soif, aussi souvent que besoin en sera ; car le système a beaucoup d'aptitude à s'en emparer promptement, pour réparer la perte qu'il a subie. Il me paraît préférable de les donner en petite quantité, à des intervalles rapprochées, et autant que possible, en même temps que les remèdes auxquels ils peuvent servir de véhicule.

Les liqueurs spiritueuses, à fortes doses, à des intervalles rapprochées, dans le but de rétablir la réaction, me paraissent dangereuses, vû que dans cette maladie elles agissent comme sédatifs, surtout durant l'absence des crampes, en égard à l'extrême depression.

La teinture suivante, me paraît les remplacer avantageusement :

R Capsici 3ss,
Caryoph",
Nuc" Mosch",
Cinnam" ā-ā 3i.
Spirit, Vini, Rect" 3viii.

Une cuillerée à thé, dans un peu d'eau chaude sucrée, avec un peu de soude, forme un excellent breuvage ; on le trouvera très avantageux comme stimulant, même durant la seconde période, à un état avancé.

Le patient ne devrait prendre aucune nourriture, que plusieurs heures après la cessation complète de tous les mauvais symptômes ; les substances farineuses, ou féculieuses, gruau, empois de blé d'Inde, arrow-root, tapioca, sago, mousse d'Islande, &c., préparées à l'eau, et prises en petite quantité, me paraissent les plus convenables, dans le début de la convalescence.

TRAITEMENT DE LA FIÈVRE CONSÉCUTIVE, OU DE LA 3^{ME} PÉRIODE.

Ici la saignée locale pour parer aux déterminations locales, me paraît indiquée, ainsi que l'usage des contre-irritants, des applications froides ou glacées, lorsque le cerveau sera le siège de la détermination.

C'est ici que le tart". pot". sera des plus utiles, pour combattre la fièvre et les accumulations intestinales qui peuvent avoir lieu durant cette période ; lorsqu'il ne sera pas requis ou qu'il sera inadmissible, on devra toujours continuer l'usage de la soude, dans un breuvage non-stimulant.

Lorsqu'il y aura diarrhée, l'eau gommée (solution de gomme arabique,) sera probablement la meilleure préparation.

Dans la majeure partie des cas, les applications froides, et l'usage en temps et lieu, des autres moyens, dispenseront de la saignée locale.

CAS EXCEPTIONNELS.

Ce ne peut être que dans ces cas que l'on doit avoir recours à la lancette ; car en réalité, alors la maladie doit changer de nom, quoique la cause excitante soit la même.

L'irritation se porte alors sur l'encéphale, pour y déterminer épilepsie, par crudité de l'estomac (a cruditate ventriculi) et cette dernière se termine par apoplexie ?

On doit alors saigner généralement et localement, jusqu'à ce que la congestion soit disparue.

Même en l'absence de toute action spasmodique, ce me semble qu'il ne serait pas prudent d'administrer un émétique, dans le but de débarrasser l'estomac de la source d'irritation ; car en provoquant le vomissement, on pourrait peut-être exciter l'action spasmodique ?

D'ailleurs il serait toujours préférable, ce me semble, de détruire, neutraliser son acrimonie, par l'ammoniaque ou la soude ; l'ordre se rétablirait facilement durant l'usage de ces remèdes, et l'émétique ne serait pas requis. Si toutefois on désirait s'en servir, on ne pourrait obtenir le but que l'on se serait proposé, si l'action spasmodique survenait, car alors, la contraction des sphincters s'opposerait au passage des matières solides trop volumineuses, pour les franchir.

En pareil cas le seidlitz avec excès d'alcali, et le tart." pot." rempliraient, ce me semble, des buts essentiels, en agissant (le premier surtout) comme antacide et laxatif.

Si la diarrhée et quelques autres symptômes survenaient spontanément, le traitement d'ailleurs, devrait être tel que durant la 1^{re}. ou la 2^{me} période.

SUR L'USAGE DES EMETIQUES ET DES CATHARTIQUES.

Les émétiques dans le but de débarrasser l'estomac de la masse irritante, durant la première et seconde période, me paraissent dangereux et inutiles : dangereux, vû qu'à l'instar des forts cathartiques qui administrés en pareil temps, à des intervalles fort rapprochées, (*Hydrag^{us} Chlor^{us} 3j bis horâ*) ne purent en apparence opérer, ils pourraient pareillement faillir, et causer une irritation additionnelle inutile : vû que le traitement proposé simplifie singulièrement la maladie, possédant en outre, l'avantage de stimuler fortement, tout en neutralisant la cause excitante.

Quant aux purgatifs, dans le but de débarrasser les intestins de la masse irritante dès qu'elle a franchi le pylore, ce qui précède, me paraît une raison suffisante par elle-même, pour ne pas les employer pendant les deux premières périodes.

En outre, les moyens précités en neutralisant cette masse, facilitent en même temps sa solution ; et dans le cas contraire, les sels neutres qui se forment probablement, à l'état de solution, peuvent, pour ainsi dire, opérer à demande comme doux laxatifs.

D'ailleurs il est à présumer, que si la masse, après avoir franchi le pylore continuait à irriter, les intestins ayant recouvré leur action péristaltique par la cessation de l'action spasmodique, s'en débarrasseraient par eux-mêmes ; car je dois ici remarquer, qu'après la cessation complète de l'action spasmodique, caractérisée par la relaxation générale, un sentiment de bien-être qu'éprouve le malade, vû qu'un laxatif ordinaire opère facilement, cette supposition me paraît raisonnable, étant porté à croire que l'action spasmodique influe sur les intestins tout aussi bien que sur l'estomac ; et par conséquent, le mouvement péristaltique se trouve généralement affecté ; ou peut-être, que durant l'action spasmodique, la membrane gastro-intestinale, sous l'influence d'une irritation spécifique et intense à laquelle elle ne peut se soustraire, ne peut être affectée par un agent quelconque, qu'après la disparition ou la neutralisation de la cause qui l'a déterminée.

Un ami professionnel, dans le cours d'une conversation en rapport avec le sujet, me fit part d'une observation clinique offerte durant une maladie grave (trismus), produite par l'absorption de sanie durant une opération, à travers une plaie légère à la main de l'opérateur, lorsqu'il amputait un membre gangrené et qui paraît appuyer cette dernière hypothèse. Les médecins de Québec s'empressèrent de lui porter tous les soins de l'art, durant sa maladie qui fut de longue durée : dans le but de soulager une gastralgie intense durant un paroxysme qui dura plusieurs heures, on lui administra un fort stimulant diffusible. Tant que

dura ce paroxysme, le liquide n'affecta nullement l'estomac, parut y reposer sans altération jusqu'à la cessation spasmodique, alors son effet se manifesta par une stupeur complète.

Supposant donc le principe établi : que dans le Choléra, l'action spasmodique provienne d'irritation progressive sur la muqueuse gastro-intestinale, et qu'elle soit dès le début, occasionnée par la présence dans l'estomac, du bol alimentaire dont les conditions chimiques se trouvent dans un état anormal par rapport à l'organe qu'il affecte spécifiquement ; durant l'existence de cette action, il me paraît impossible de détruire la cause déterminante, si les remèdes donnés dans cette vue, ne peuvent rentrer en combinaison avec le bol alimentaire et neutraliser son effet.

CONVALESCENCE.

Cet état (selon moi) est caractérisé par la cessation de tous les symptômes propres à chaque période, s'il survient, ou existe encore malaise à la région épigastrique ou abdominale, les toniques et les laxatifs doivent y obvier : le pulv^r rhei en combinaison avec sodæ bi-c. ; le seidlitz ; ol^r ric^r ; pot^r tart^r, &c.,

Le régime doit-être soigneusement proportionné aux forces digestives ; il faut y apporter de grands soins ; le retour au genre de vie ordinaire, doit s'opérer graduellement.

Le sang à l'état normal, fournit et maintient la chaleur animale : si la physique moderne a réellement constaté que la lumière, l'électricité, le magnétisme, et le galvanisme, &c., ne sont que des modifications du calorique ; dans un cas extrême, pourvu qu'il n'y eut pas lésion organique, vû que d'ailleurs le fluide électrique agit aussi puissamment comme stimulant sur les organes vitaux, par l'intermédiaire du système nerveux.

Pourrait-on, avec un certain espoir de succès, diriger un léger courant galvanique sur la muqueuse intestinale, dans le but de rétablir simultanément la réaction, la susceptibilité nerveuse, et surtout la chaleur animale, par moyen direct et indirect ?

Ce fluide si abondant par toute la nature, sous différentes formes, imprègne plus ou moins les corps organisés et non organisés ; en le dirigeant sur un corps organisé, peut-il pour un certain temps, s'y fixer, comme calorique latent et réparer une perte de chaleur animale ?

S'il est vrai que durant cette épidémie, comme on l'a prétendu en 1849, il y ait rareté d'électricité, ne pourrait-on pas être porté à croire, qu'il y aurait soustraction partielle de ce fluide, surtout chez les corps organisés, ce qui en vérité constituerait chez eux, atonie positive, faute d'un stimulus habituel, et agirait comme cause prédisposante ?

HYGIÈNE.—Les soins corporels, sont ceux que l'on doit observer gé-

néralement, pour se conserver la santé; éviter le froid, l'humidité, une chaleur intense, une transpiration excessive; l'habillement doit convenir au temps et à la saison; éviter l'indigestion; vivre selon sa coutume; faire usage de la nourriture d'habitude; éviter les excès.

Les aliments doivent être de bonne qualité, et pris en quantité suffisante pour réparer les forces; éviter de prendre ce qui ne s'accorde pas avec son estomac: on est toujours le plus capable de faire un choix judicieux en pareil cas, connaissant mieux ses aptitudes et ses forces digestives.

Se nerver d'une mâle résolution, afin d'éviter les effets pernicioeux de la panique qui n'a eu que trop de victimes!!!..

Un air, impur, une atmosphère viciée par les miasmes provenant de substances animales et végétales en décomposition, paraissent aggraver le type de la maladie, prolonger son existence, lui fournir un foyer, favoriser sa cause excitante et prédisposante....

RESUME DES PRINCIPALES PRESCRIPTIONS EMPLOYEES.

R Tinct. Caps. Co. 3j
Sodæ Bi-C-3ss vel ʒij
Aquæ Calid. ʒIV
Sacchar. q-s
F. H. q. h. s.

Durant la 1re période, et même la seconde à un état assez avancé, une seule dose a suffi.

Sodæ Bi-C. 3ij
Pulv. Zing. ʒij
Aquæ bullient. ʒXVI
Sacchar.-q-s
huj. inf. 4me part. st. s-æg. &c.,
deinde ʒj bis hâ-q. s.

Durant la 1re et la 2me période.

Ammon. Carb. in
Pulv. trit, gr. V, vel X
Spir. Ammon. a. GXV, XX
vel 3ss
Aquæ, vel infus ar. ʒi-m
F. Haust 4er. hâ-q. s.

Durant la 2me période.

Sodæ Bi-C-gr. X
Pulv. Zing.—gr. ij
Pulv. Opii gr. ¼ vel ssm
F. Pulv. hâ-q, vel 2 à s.

Durant une diarrhée lientérique
faisant suite à la maladie primitive.

Cas où le traitement ne fut que partiellement modifié, et qui me démontre l'utilité des antacides en combinaison avec les stimulants.

1849, Mr. J. F. æt 15 (Juillet 14) tous les symptômes de la 1re période, vomissement, diarrhée, crampes, soif ardente et les quatre premiers de la seconde période-i-e: entralgie, haleine froide, froideur générale, transpiration froide.

On emploie fomentations et applications chaudes en général, eau-de-vie épicee avec eau chaude, poudres anticholérines toutes les heures; (15) cessation des crampes, réaction partielle, la diarrhée continue, elle est moins fréquente; (16) retour de tous les symptômes précités (10 A.M.) R. Applications chaudes en général tr'' capsici c'' ʒij, sodæ bi-c. ʒi, aquæ cal'' ʒiv sach'' q-v-F-H-s-s; (1 P.M.) cessation des crampes, malaise à l'épigastre, réaction; (8 P.M.) même état, R. Aaust'' ut antè, cont'' omnia; (17, 8 A.M.) vomissement des matières solides: on distingue très clairement le plumpudding qu'il avait mangé le 13, durant un diner très copieux. R.-H. ut-antè; 1 P.M. mieux très prononcé; arrow-root claire, épicee ʒiv et cont'' omn''; (19) rentre en convalescence. La menthe infusée constituait le breuvage ordinaire durant la maladie.

N. B. Le vomissement séreux avait été considérable; après la cessation de l'action spasmodique, l'estomac ne rejete les aliments qu'il n'a pu digérer que le 4me jour, après un repas démesuré.

Je suis convaincu que quelques doses d'ammoniaque (bi, vel-c-ammonia) ou simplement de bi-c. de soude dans le début, auraient fait disparaître tous les symptômes; auraient activé la digestion; la convalescence aurait été prochaine. Nonobstant, j'attribue le résultat heureux à l'administration (tardive il est vrai) du bi-c-de soude, en combinaison avec la teinture de poivre rouge, préférable sous tous rapports, à l'eau-de-vie (brandy épicee), vû qu'elle peut s'administrer fréquemment, sans stupéfier.

C'est le seul cas à ma connaissance, où l'estomac ait rejeté les matières solides.

AUTRE CAS—Cristiana Harvey, 1851 æt'' 14—Sept, 8, à 5 P.M. le vomissement et la diarrhée subsistaient depuis la veille de la nuit précédente, et les crampes étaient survenues le matin de bonne heure: corps glacé, cyanose très prononcée; yeux profonds dans les orbites; voix à peu près éteinte; absence du pouls, mouvements alternatifs.

R. Applications chaudes en général, breuvage épicee. Poudres anticholérines, contenant un peu de bi-c. sodæ, toutes les demie-heures; Spirit'' ammon'' Gtt'' XV, toutes les X minutes. Je lui envoie une robe de cariole; de 8 à 10 heures P.M. pas de réaction; crampes atroces,

œil éteint, coma menaçant, je la compte pour morte, dans le cours de la nuit.

Sept. 9, à 8 A.M. à ma grande surprise Mr. B. m'apprend qu'elle vit ; qu'elle est mieux ; je la visite. Pouls à la radiale ; les crampes avaient cessé le matin ; le pouls était à peine perceptible ; elle donne peu à espérer : Cont'' omnia. Sept. 10, 8 A.M. faible réaction, peu de chaleur. Sept. 11, réaction et chaleur croissantes ; tend à rentrer dans la 3^{me} période. Sept. 12, chaleur douce, pouls à 65. Sept. 13 et 14 continue dans le même état. Elle prend du gruau à l'eau, en petites quantités depuis le 10.

Mr. B. ne pouvant lui porter les soins assidus, la transporte à l'Hôpital de Marine.

N. B. Je pense que le bi-c-Sodæ conjointement avec le Spirit'' Ammon'' avaient bien agi.

AUTRE CAS—1851, Honoré Lecourt, æt'' 28, tempéramment phlegmatique, estomac très irritable ; Sept. 14 se plaint de diarrhée, me dit qu'il vomit, qu'il n'en est nullement étonné ; il se croit affecté d'une simple diarrhée. Je suis moi-même dans le doute, je lui prescris : cretæ-cop'' gr. VIII avec quelques grains de rhubarbe, toutes les 3 heures, lui enjoignant de m'avertir, s'il ne va pas mieux sous peu, lui recommande d'être généralement prudent. Sept. 15, contre injonction expresse, monte au champ, à une certaine distance, descend plusieurs moutons qu'il tue pour le marché du lendemain, se permet de manger des pommes vertes et crues ; la diarrhée s'aggravait toujours.

Sept. 16, à 9 A.M. diarrhée qui avait toujours été la même en apparence dès le début, est évidemment séreuse ; le vomissement est fréquent ; voix altérée ; yeux calés dans les orbites ; sueurs et peau froides ; cyanose incipiente ; prostration des forces.

Je lui recommande de prendre le lit, et de faire usage des moyens ordinaires pour rétablir la réaction ; ne ressentant pas de mal, il ne veut pas se conformer à mes injonctions. 3 P.M. me demande : le danger est évident à tous ; il implore secours. Tous les symptômes se sont aggravés : il y a peu de crampes ; cyanose ; absence de pouls ; corps glacé ; sueurs par-gouttelettes, prostration absolue ; la maison offrant les commodités requises, tout est mis en réquisition, forces couvertures, briques, bouteilles d'eau chaudes, fomentations, etc., tout le monde est à l'œuvre ; rien n'est épargné.

R. Spirit'' ammon'' gr. XV, toutes les X minutes, dans de la menthe chaude, thé de gingembre avec soude, donné très souvent pour apaiser la soif ; à 7 P.M. nul changement, douleur intense à l'hypochondre droit ; fomentations locales ; le mal s'aggrave de plus en plus ; perte de la

vue, teintement d'oreilles ; à 9½ P.M. j'avertis les parents qu'il n'y avait plus d'espérance.

Nonobstant, nos efforts redoublent pour ainsi dire, les remèdes sont administrés, ou plutôt versés lentement d'instans en instans dans la bouche, sans avoir égard au temps précis ; les briques sont brûlantes, fomentations, &c., (Sept" 17, à 1 A.M.) on me réveille, me demandant de voir le malade : la douleur à l'hypochondre, descendant graduellement avait atteint l'ombilic, elle est plus supportable, continue sa marche ; le pouls à 30 : je suppose d'abord que c'est un léger subsultus tend" ; pas de retour de chaleur ; 3 A.M. pouls à 40.

Il y a lueur d'espérance ; la chaleur animale est à peine perceptible ; le malade a recouvert partiellement la vue.

Le 18, tout avait fait place à une fièvre lente ; mouvements alternatifs et débilité continuent ; soif ardente pour l'eau froide ; le thé de gingembre avec le bi-c-sodæ est continué avec arrow-root à l'eau. La fièvre dura environ 8 jours, cédant graduellement : je ne crus devoir donner dans l'intervalle, que trois ou quatre poudres de pulv" rhei et sodæ-bi-c.

N. B. J'ai attribué la douleur errante aux pommes vertes. Il m'a semblé depuis que j'aurais dû ajouter à ce traitement, dès l'apparition des mauvais symptômes surtout, le carb" ammoniæ, et donner le bi-c. sodæ dès le début. L'expérience me l'a prouvé depuis.

Ce cas-ci, quoique négligé, et qu'il eut été facile de guérir en le traitant dès le début, comme cas de Choléra, fut intéressant sous le rapport clinique ; ayant présenté la marche progressive de la maladie dans toutes ses phases, se développant progressivement, sans douleur ou malaise notables. Le traitement proposé dont les prescriptions donnent à peu près un aperçu compte 45 cures, dont 2 de coma, 2 de collapse comateux, i-e, cet état qui précède immédiatement le coma ; 38 cas de collapse (cold stage) dont 2 avec syncopes.

ART. LII.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University M'Gill College, &c.

(Continued from page 582.)

The result of such a critical examination of the text would be to establish, first, as regards *beasts*, that all which possess hoofs that are cloven or bifurcated, that is, which are clearly and unmistakably divided into two parts or hoofs, and which also and at the same time, chew the cud, or ruminant, are to be accounted as clean and proper for food ; and as such, may be used by the Hebrews. This will be further seen

by the examination following of some of their most eminent and authoritative writers. We commence by translating from the commentary of the learned and elegant Abarbanel on the 11th chapter of Leviticus.

He writes—"Every animal having hoofs, and this hoof split or divided into two, possesses the first requisite of the text; the second requisite is, that the animal chew the cud, or ruminate. Possessing these two conditions, it is clean, and permitted to be eaten. It is not, however, the intention of the text to imply that these requisites render the animal, clean *per se*, or their absence, unclean *per se*; but it teaches us, that these are the signs by which we are to pronounce the animal clean for man's food, or the reverse; that is, that the flesh of the animals possessing these requisites, is, for the most part, proper and good for man's diet. Thus, the reason why animals chew the cud, is, that they have no grinders [incisors] in the upper jaw, wherewith duly to grind or masticate their food; and on which account they are unable to eat any hard substance but vegetable matter which they swallow whole, and which, when softened in the stomach through the natural heat, &c., is regurgitated into the throat again, for further mastication and deglutition. Animals of this order are mostly obese and best adapted to become food for man, since they can find their food at all times and in all places; their fat also, is, comparatively speaking, better distributed than with other classes of animals, because they feed upon vegetation, both green and dry, which does not yield gross nutriment;—such animals are not ferocious nor predaceous. In addition to this, they possess a broad and divided hoof; wherefore they do not require claws like those beasts which prey upon human beings or other animals; which kind of food produces in these latter, a hot dry temperament and cruel disposition: * but the former 'walk the earth' eating the produce of the field. In this connexion we have to remark that the prophet Isaiah (upon whom be peace) shows us that at the time of the future redemption, "*the lion shall eat straw like the ox,*" on which account "they shall not hurt nor destroy," and that "the wolf shall dwell with the lamb, and the leopard shall lie down with the kid, *and the cow and the bear shall feed together,*" because the preying on flesh and blood is [both] the cause [and effect] of their objectionable temperament, and of their trampling upon and seizing what they require. Nature, on this account, has prepared for them claws and fitting grinders to tear their food; but for the clean animals, whose

* Compare this remark of Abarbanel with what has been advanced by modern scientific writers as to the effects of blood-eating. See also p. 26.

food is the grass of the field, she has prepared divided and broad hoofs, as their manner of walking on the earth to gather their food therefrom requires; nor has she bestowed on them grinders or incisors since these are not required for vegetable food." Abarbanel next proceeds to remark on some of the beasts mentioned in the sacred text, which will be hereafter noticed. We will continue some further observations of this celebrated Jewish commentator, having a closer connexion with those just quoted: thinking that our readers will not be uninterested to see, for the first time in an English dress, the continuation of what we may regard as a brief Hebrew treatise on Zoology, which, although republished by Don Isaac Abarbanel some three centuries and a half past only, was actually taught in the schools of the Hebrews some fifteen centuries back; for our author advances nothing that is not to be found in the Talmud, and as we have elsewhere said, the Talmud is a mere compilation of ancient teachings in Israel. But prior to continuing the Rabbi's remarks, let us make a few of our own on what has been already advanced from him. The reader will, doubtless, readily perceive their pertinency to the main question, since they involve inquiries elucidatory of the nature of the clean and unclean animals.

We observe, in the first place, a remarkable identity in the definitions of the ruminating animals as given by Abarbanel and the Talmud, and by modern naturalists. Let us compare his definitions with those of the illustrious and world-renowned Cuvier. In his *Règne Animal*, he gives the following definition of the *Ruminantia*, which he says may be considered as an order very distinct of the *Mammalia*—the first class into which vertebrate animals are divided.—“The order of the *Ruminantia* is characterized by its cloven feet, by the absence of the incisors to the upper jaw, and by having four stomachs.” The identity of definition is immediately perceived; for though in the quotation we have just made, Abarbanel only indirectly refers to the four stomachs of the ruminants, yet in other passages of his writings they are specially referred to as characteristics; just as they are in the Talmud. See in particular the Treatise *Cholin, Perek Elu Terephot*, &c., p. 42. The absence of such reference, however, in the above passage from Abarbanel, leads us to observe that the names given in the Talmud show how intimate the ancient Hebrews were, even before the destruction of the second temple, with the mechanism and philosophy of rumination. In the first place, we remark that with reference both to position and functions, the first and second stomachs have much in common. Thus, though at first sight, the second stomach would seem to be merely an appendage to the third,

in front of which it is; yet, it may, with greater propriety, be regarded as rather a prolongation of the first. This first stomach, which is the largest, is named the *paunch* (*magnus venter rumen, aut, penula*) is covered with papillæ and is lined by a layer of the epidermis; and the second which is called the honeycomb [*reticulum arsineum*] from the mucous membrane which lines its interior, forming a multitude of folds so arranged as to constitute polygonal cells, like those of a bees comb. And with reference to their functions, recent investigation has shown these to be *identical* in respect to the regurgitation by which the food contained in them returns into the mouth. For this has mostly been attributed to the second stomach only, whereas it is now established especially by the experiments of M. Flourens, that both the first and second stomachs are instrumental therein.* Moreover food remains in both, until after a second maceration, when it passes on to the third and fourth stomachs. From all this is very apparent the propriety of the Hebrew term which is one and the same for both stomachs, viz.: *בית הקוסות* *Beth hakossoth* the cup-like or celular regions † the word *קוס* generally translated cup, referring either to the stomach being a hollow vessel to receive matter, to be poured therefrom again, as is certainly the office of the cup, more especially when, as of yore, the grape (vegetable matter) was pressed into it for the refreshment of the guests at the wine feasts; or else referring to the papillæ of the internal surface of the first, as of the polygonal cells of the second. The third stomach called *many plies*; on account of its large longitudinal leave-like folds, in Hebrew, receives the names of *חמסס* *Hamesses*, from which the Latin name for the third stomach *omasum*, we think is unquestionably derived, wherefore it needs to make no further remark thereon. ‡ The fourth stomach is called *reed* (aboma-

* "By their contraction," Dr. W. B. Carpenter informs us, "the paunch and honeycomb force the alimentary mass which they contain between the borders of the furrow of the œsophagus, and this contracting in its turn, takes up a portion of it, separates it, and forms it into the ball which is destined to return along the œsophagus."

† *Kos* in Talmudical Hebrew also means a pore. Vide *Lingua Sacra*, Rad. *Kos*.

‡ Save that the Aruch in a comment on the word as occurring in the Talmud has the following remarks "*מסס וביט הקוסות* *Messes* and *Beth Hakossoth* signify the stomach, because the concoction of the food therein, is called *Messes* like the passage *מסס* [This passage Isaiah x. 18, is translated in the English version, "and they shall be as when a standard bearer fainteth". Without examining the correctness of this rendering, we state that the root *massos* means to melt, and the connexion between this idea, and that of the functions of the *omasum* is very clear.] The Aruch then shows how the word has been explained by others, which, as not immediately concerning us, we pass over. The following note to the Aruch, added by R. Benjamin Musaphia, an author of the highest order, we give in full, as it confirms what has been advanced above with reference to the terms applied to the stomach—*ורמסס בלשון רמ"י אחד מן קרבי*

sum faliscus ventriculus intestinalis) and in Hebrew קִיבָּה (Kebah) which is derived from the root נָקַב (Nakob. See Parkhurst thereon) meaning to perforate, and conveying, as will be seen, the same idea as the English term. From this brief analysis is evident, as we imagine, that the ancient Hebrews were well acquainted with the mechanism of rumination, and, it would be reasonable to conclude, as a consequence, with the phenomena and process thereof also. Continuing now our comparison between the definitions of Abarbanel and Cuvier, let us premise this single remark. It is not to be forgotten that neither the Talmud nor Abarbanel are writing medical or physiological treatises, yet, the latter gives what none can consider a contemptible account of the process of rumination as compared with those of modern writers. A further remarkable identity in Abarbanel's and Cuvier's definitions is easily and clearly perceivable by comparing the last two paragraphs of the quoted comment with the following postulates of the renowned naturalist in his formal and learned treatise:—"A hoof which envelopes all that portion of the toe which touches the ground, blunts its sensibility, and renders the foot incapable of seizing." "For cutting flesh, grinders are required as trenchant as a saw, and jaws fitted like scissors which have no other motion than a vertical one." "Hoofed animals are all necessarily herbivorous, and have flat crooked grinders, inasmuch as their feet preclude the possibility of their seizing a living prey, &c., &c."

We continue Abarbanel's remarks having reference to the general directions for discrimination laid down by the Levitical law. "Our pious sages have traditionally supplied us with the signs whereby we may distinguish the clean from the unclean of those ruminant animals possessing horns. Beasts which ruminate, having no grinders or incisors on the upper jaw are supplied by nature with horns; the matter which should form these teeth being compensated by her with horns, which renew after their birth, at which time they do not possess any." This teaching is thus verified in one of the most recent and popular works on Zoology, that of Dr. Carpenter. "Horns are found on the heads of all the other animals of the order, in the males at least. The horns essentially consist of prominences of the frontal bone. * The Mammalia which are furnished with bony branching horns, all belong to the order of the Ruminants." † Abarbanel continues;

הבהמות המעלות צרה וכלל זה יעלה בידך כל הבהמות המעלות יש להן ג' כרסים ולראיה שלחן
יש אונות גם לעבד שלחן יש אונות והכליות שלחן מוחצכות לא כן הבהמות המעלות כי כרס
לרם והראיה וכן העבד והכלית והראיה א' על א' מהם וכמד וה' כרסים שיש לבהמות המעלות יש גם
ג' כרסים לשפת שחורות וכן וקרבן וכרס א' קטן גם לדגם המעלות יש כרסים :

* Sec. 259.

† Sec. 82.

“The use of these horns to such animals is that they may defend themselves therewith against casualties and attack, since they cannot fall back upon their teeth and claws like the predaceous animals.” Our commentator then proceeds to discourse of the distinguishing signs of birds and fishes, which we must omit for the present, while we see what further has been advanced by Hebrews respecting the clean animals.

Maimonides in his *Yad Hachasakah*, at the first chapter of his *Treatise on Forbidden Meats*, which contains the Hebrew traditional signs of discrimination, &c., writes as follows :

§ 1. “It is an affirmative precept [obligatory on Israelites] to become acquainted with the signs which distinguish between beasts, domestic and wild, birds, fishes and locusts. [The word employed by Maimonides is חגבים (*Chagabim*) which, though we translate locusts, rather means the *Orthoptera* and *Saltatoria* of modern naturalists] permitted or prohibited for food, as it is said, ‘ye shall make a distinction between the beast which is clean and that which is unclean, and between the fowl which is unclean and that which is clean.’ It is also said, ‘make a difference between the unclean and the clean, and between the beast that may be eaten and the beast that may not be eaten, (Lev. xi. 47.)’

§ 2. The distinguishing signs of domestic and wild animals are explained in the Levitical law, and are two, both ‘dividing the hoof’ and ‘chewing the cud;’ every ruminant animal hath no teeth or incisors in the upper jaw ; and every ruminant beast also divideth the hoof, the camel excepted ; and every beast which divideth the hoof cheweth the cud, the swine excepted. * § 3. Therefore, he who finds

* The great Cabbalist, Harabad (R. Abm. ben David) attacks this definition of Maimonides, briefly referring to the cases of the *Shafan* * and the *Arnebet*. The attack is, however, groundless and unjust, as it would appear, since Maimonides, though writing in the 12th century, writes like the great philosopher he was, just, as we have seen above, Cuvier in our age writes when discoursing of the Ruminantia of which animals *as an order or class*, Maimonides correctly speaks. He is ably defended, however, by the author of the *Magid Mishneh* who says : “From what our teacher (Maimonides) himself writes elsewhere, as well as from the explanations of Holy Writ, we know that the *Shafan* and *Arnebet* ruminate, but divide not the hoof. It is also known that it (the *Arnebet*) hath teeth, incisors, in the upper jaw, as the Talmud informs us, but with this our Rabbi was of a verity well acquainted, the proper interpretation of his words being this, Having already explained that clean beasts require both signs, his expression ‘every beast which ruminates, &c.,’ refers to the clean animals, which is indeed the case, as is shown in the Talmud which affirms—‘You cannot find any of the clean animals which are ruminant that have incisors in their upper jaw.’ Our author then explains that every ruminant animal, i. e., that also does not possess incisors on the

* The nomenclature of these animals is a subject for after consideration.

a beast in the wilderness and is ignorant of its nature, but finds its hoofs divided; he examines its mouth, and if it has no teeth above, then it is undoubtedly clean; and thus is the camel distinguishable. If he find a beast with incised or fissured mouth, he examines its hoofs, if they be divided, it is clean; and thus is the swine distinguishable. If he finds both mouth and feet cut, he examines it, after it is slaughtered, beneath the backbone. [On tearing the flesh, in this part of the female camel, some of it will rend woofwise, and some warpwise:—Rashi,] if he find its flesh proceed [or tear] warpwise and woofwise it is clean, and so is the ngarood distinguishable, for such is the nature of its flesh. [The “ngarood” is generally translated *wild ass*, Job xxxix. 5. It denotes the same in Chaldee with some variation in the form, as it is used in the plural, which is not the case in the Hebrew. It is also so understood in Talmudic Hebrew. See Keleem ch. viii., the Aruch, and Ling. Sac. rad Arod. In Shemoth Rabba, sec. 1, fol. 149, it denotes a species of serpent.]

§ 4. A clean beast that begot young having the appearance of an unclean animal, although it divides not the hoof, and chews not the cud, but is like the horse or ass in every respect, this young is permitted for food, that is, when born in the Israelite’s presence; but if he should set apart in his flock a cow which is with young, and after an absence, finds a young one like the swine, even if it suckle it, it is yet doubtful and prohibited for food, for possibly it may have been born of an unclean animal, though attaching itself afterwards to the clean.

§ 5. An apparently clean beast, begotten of an unclean beast, although it divide the hoof and chew the cud, and is even in all respects like an ox or like a sheep, is yet unlawful food; since a preponderance of the unclean, we must pronounce as unclean, and of the clean, we

upper jaw, divideth the hoof, the camel excepted, as is further explained in the Talmud, which says, ‘The camel approximates to the clean animals in respect to its ruminating and in its want of the regular number of upper grinders. * * It is also stated in the Talmud, that the camel has נִבְּ (nibœ) on the upper jaw, meaning two teeth, proceeding different ways at the extremities of the cheeks. The same authority also informs us that the young of the camel have not their teeth developed but are like the clean animals in this respect. It would appear then, that our author writes in a manner having reference to these ancient Talmudic teachings, intimating that the camel, which is ruminant, is at the same time peculiar *sui generis*. None ruminating is unclean, like the camel, [there being also a peculiarity of hoof in its case] therefore is it particularly mentioned in the text. Harabad thought, however, that our teacher intended to assert, that all ruminant animals had no incisors on their upper jaw, hence his correction; the result, however, is to show that all animals possessing regular incisive teeth are unclean. He (Harabad) further thought, that it was the intention of Maimonides when he wrote that ‘every ruminant animal divided the hoof’ to convey, that this is so in respect both to those who do and do not possess such teeth; but I have already explained his opinion.”

must consider as clean ; wherefore an unclean fish, found within one clean, is prohibited ; and a clean fish found in one unclean, is for the stated reason, permitted: § 6. A clean beast that begot, or that contained, a creature [monstrosity] having two backs, and also a double back bone is prohibited food ; this is the שסועה [Shessungha cloven, or divided] to which holy writ refers, when it declares, [Deut, xiv. 7.] ‘ Nevertheless, these ye shall not eat, of them that chew the cud or of them that divide the פרסה השסועה [Parsah Hasseshungha] cloven hoof,’ implying a creature that was born, being divided or parted, as it were, into two animals. § 7. And so with respect to any beast in which was found a creature, having the form of a fowl ; although it may prove one of the clean species of fowl, yet must it be accounted as unlawful food. It is not proper to regard as clean, any creature found in any animal but such as possess hoofs. § 8. Of all beasts, wild and domestic, which the world affords, none are permitted for food except the ten kinds specified in the law.* Three are of the domestic kind, viz.: 1. שור [shor, ox ; we retain, for the present, the translation of the Anglican version,] 2. שה [seh, sheep] 3. עז [ngez, goat] ; and seven are included among the wild beasts, viz: 1. איל [ayal, hart], 2. צבי [tsebi, roebuck] 3. יחמור [yachmur, fallow deer] 4. אקו [ako, wild goat] 5. דיסון [dishon, pygarg] 6. תאו [tèò, wild ox] 7. זמר [zemer, chamois] these and their various genera, such as the שור חביר [shor abar, according to

* “ It was well known and manifest before him, who ‘ said and the world was’ that the unclean animals exceed the number of the clean ; therefore doth holy writ enumerate the clean ; and also that the clean fowl exceed in number the unclean, therefore doth the text enumerate the unclean”—Talmud, Treat. *Cholin*, *Perek Elu Terephot*, P. 63., b. see the *Magid Mishneh*, which cites this passage, and one further (page 80, of the same treatise,) to show that Maimonides is correct in the traditional rule he lays down as to the number and division of the enumerated animals.) There is a discussion—particularly interesting with reference to the knowledge of natural history displayed—as to the correctness of Maimonides’ classing the *shor habar*, (generally understood as the wood-ox) among the wild beasts, upon which subject there is a difference of opinion in the Talmud ; but it is too lengthy, for more than a passing notice. Its importance in fixing a charge of apparent self-contradiction on Maimonides, is but very small, since it can with truth be asserted, that he writes with reference to the opinions contained in the Talmud, as indeed the *Magid Mishneh* gives us good grounds for believing ;—besides modern naturalists have disputed upon similar points, and it is not always profitable or necessary, to repeat the grounds of their opinions. The inquiring reader, will find this discussion on reference to the *Magid Mishneh*, the *Keseph Mishneh*, and other commentaries, published with the *Yad* of Maimonides, also to the Talmud, Treatise *Kilaim*, *Perek Oto V’et Bena*, &c. We learn however, that the *shor habar*, is, according to some, identical with the תרבלה *Tarbelah*, Wild ox, or Buffalo, (see Targ. Onk. Deut. xiv, 5, *Cholin* fo, 80, a.) while according to others, it is of the goat kind.

some the wood-ox. Compare Targ. Jer. Ps. l. 10. Treat Peah ch. 8, Rashi, Ps. l. 10, according to others the חרבֵּלָה *Tarbelah*, wild ox or buffalo; Targ. Onk. Deut. xiv. 5. Cholin fo. 80, a.] and of the מֵרִי [merie, translated by some, fatted ox] which are of the ox kind. All these ten species and their genera, are ruminant, and of bifurcated hoof; therefore, he who [at first sight] knows them, need not examine either their mouth or feet, [to ascertain their lawfulness for food.] § 9. Although they are all permitted for food, yet do we require to discriminate between the clean among domestic, and the clean among wild animals; for the fat of the wild animal is permitted, and its blood, [issuing at the time it is slaughtered] must be covered; whereas with respect to the domestic animals, the sacrificial suet is prohibited under pain of excision, and its blood does not require to be covered. § 10. The distinguishing signs of the wild beasts, are supplied to us by tradition. Thus, every animal dividing the hoof, and chewing the cud, and possessing divided horns like the אֵיִל (ayal, stag,) is to be considered as unquestionably clean; but with reference to all, not having their horns divided, if their horns be covered or encased, like the horns of the ox, incised like the horns of the goat, and the incision erased, and crooked like the horns of the tsebi [roebuck,] these are wild animals which are clean, provided always that the horns possess these requisites, being encased, incised, and crooked. § 11. This applies, however, only to such kinds of animals as are not known; but as to the seven species of wild beast mentioned in the law, if one be well acquainted with these, even if he find that they possess not horns, he may eat its fat, and is obliged to cover its blood in slaughtering it. § 12. The *shor habar* is of the domestic species, and the קֶרֶשׁ *keresh*, [by some translated, unicorn] although it possess but one horn it is accounted as a wild animal. All, respecting which, there may be a doubt as to whether it be of the wild or domestic class of animals, the fat of such is prohibited, the scriptural penalty of stripes is not incurred, and the blood thereof is to be covered at the time of slaughtering. § 13. A beast of mixed breed produced from a domestic animal that is clean and a wild beast that is clean is called כֹּוִי (kooi) its fat is prohibited, the penalty of stripes is not incurred, and they cover its blood." Thus far Maimonides as to the distinctive signs of beasts.

A further result of a critical examination of the text would be to establish, secondly, as regards *fishes*, that "whatever hath fins and scales in the waters, in the seas and in the rivers," are to be accounted clean and proper for food, and as such, may be used by the Hebrews; whereas "all that have not fins nor scales in the seas, and in the rivers," adds the text, v. 10, "of all that move in the waters, and of any living thing which is in the waters, they *shall be* an abomination unto you.

v. 11. They shall be even an abomination unto you; ye shall not eat of their flesh, but ye shall have their carcasses in abomination. v. 12. Whatsoever hath no fins nor scales in the waters, that *shall be* an abomination unto you." This is further shown by the Hebrew writers, to whom we have just referred. Abarbanel's remarks are as follow—"Just as two conditions characterise the clean beasts, and two, the clean fowl, [Abarbanel refers here to his comment, respecting the clean birds which we omit till hereafter] so doth the text lay down two conditions which must be possessed by the clean fishes. Its expression, therefore, is, "these may you eat of all that are in the waters, all that have fins and scales in the waters, &c.," but those which are not so characterised "shall be an abomination unto you." Some have thought to assign as a reason for these directions, that fishes that possess fins and scales, are enabled to swim to and fro wherever and whenever they desire; whereas those who do not possess fins and scales, are not so able; wherefore they [the latter] remain continually in muddy places in the water, and become earthy and of unwholesome nature. But this is in reality not the case, for fins and scales are engendered in fish, in consequence of a superflux of nature which they possess, and therefore doth their body become clean and good for food, which is not the case with those not possessing fins and scales. These latter are of an exceedingly moist nature, and have not

is derived from and compounded of אשר [asher, which] and קץ [kata, to vex or fret] as in Genesis xxvii, 46, קצתי בחיי, I am vexed or fretted [Ang. vers. weary] with my life." Now because some might peradventure say, 'Not to eat of them is, doubtless, proper, since their flesh is bad; but as to the penalty attached to touching them, why should their carcase be pronounced an abomination?' on this account saith the text for the second time, 'all that have no fins nor scales in the waters shall be an abomination unto you'; as if it were giving us the Talmudic caution במהלא ממך אל תדרוש [Investigate not matters above your comprehension] and seek not of yourselves to assign reasons for my commandments. As sum of all, take this general rule,—All aquatic and marine creatures which do not possess fins and scales, shall be an abomination unto you, and this whether in respect of eating or touching them."

(To be Continued.)

On the internal administration of Chloroform in Delirium Tremens.

By GEORGE E. FENWICK, M. D., Lecturer on Materia Medica, St. Lawrence School of Medicine, Physician to the Montreal Dispensary.

J. S., aged about 40, labouring under an attack of Delirium Tremens, brought on by suddenly stopping all stimulants after having led an irregular life for months, came under my care on the 16th September, 1852. *Present symptoms.* Great anxiety expressed in the countenance, fear of impending danger, frequent sighing, general tremor, delirium when left alone, which was of the quiet muttering kind, as if holding conversation with some imaginary person, pulse 110. weak, tongue covered with a whitish fur, bowels had been opened slightly that morning, appetite capricious, had not slept since the Saturday previous. It was 9 o'clock at night when I first saw my patient; I ordered a full

grain of chewing opium, I pre-
scribed every second hour until he
the effect of which was to
sleep, he raved and walked

and, tremor increased, constant
expressed rationally on whatever
two little devils playing the
with a noise he could not sleep.
fear than last night, the pulse
standing, bowels not open. I

prescribed two blue pills rolled in Croton oil, to be taken immediately, and at night the following draught:—

R Spt. Æth. Sulph. ℥ii.
Chloroform. ℥i. M.

This draught to be repeated every second hour until sleep was induced. Owing to a mistake the patient did not take the pills till 8 o'clock, P. M., and half an hour afterwards the draught was administered; the pills operated rather briskly, both up and down, an hour after they were taken, and the draught was not repeated.

Saturday 18th. Found my patient somewhat better, although he had had but one draught of the chloroform, still, through the night he had dozed once or twice for a few minutes at a time. The symptoms not being urgent, I ordered porter to be taken during the day and nourishment. Visited my patient at 9 o'clock, P. M., determining to administer chloroform myself and watch its effects.

I gave three teaspoonsful of a mixture composed of chloroform and spirits of sulphuric ether, in the same proportions as above, in a few minutes he complained of drowsiness, he closed his eyes and became perfectly tranquil, the respirations became deeper and slower, the pulse fell from 96 to 62; to keep up the action I held the bottle to his nose for a few minutes; I watched him for half an hour, during which time he appeared to be in a natural sleep. This state lasted for about three hours. At leaving, I directed the draught to be repeated in two hours if necessary, but my instructions were not attended to.

The day following, Sunday, he appeared much refreshed, less tremor, pulse 72, had eaten a hearty breakfast, I did not repeat the chloroform through the day; that afternoon he slept for an hour and a-half, at night I again visited my patient, and again administered the chloroform and ether as before, a single dose threw him into a profound sleep, from which he did not awake till six o'clock the following morning. From this time he gradually recovered, slept naturally and well without the use of chloroform; the only unpleasant symptom noticed was head-
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2 drops of Croton oil immediately, and prescribed the following mixture :—

℞ Tr. Opī 3 ii.
Ant. Pot. Tart. gr. iv.
Aqum ʒ iv. M.

Dose, a tablespoonful to be taken every three hours. The Croton oil operated five or six times, and after the first dose the antimony was borne by the stomach.

This treatment was continued up to the evening of the 4th, when, as there was no improvement nor tendency to sleep, I determined to employ chloroform, and accordingly prescribed the following :—

℞ Sp̄. Æth. Sulph.
Chloroform. aa ʒ ½ M.

Dose, a desertspoonful to be taken every two hours until sleep is induced. After the second dose my patient fell into a quiet slumber which lasted six hours. The following day, the 5th, he was much better, countenance improved, eye less starting, much less tremor, pulse 88, bowels had been moved that morning. I ordered the chloroform to be repeated at night. After the first dose he slept, and did not awaken till the following morning, when he felt much refreshed, and quite himself, he got up, dressed and took a short walk ; being fatigued, on his return he laid down again and fell into a sound sleep which lasted three hours. I ordered the chloroform to be repeated if necessary at night, however he slept all night without it, from this date he recovered rapidly.

Chloroform has frequently been employed in the form of inhalation with advantage by Dr. Todd and others. In the American Journal of Medical Science for January, 1852, Dr. Pratt, of Baltimore, published two cases of delirium tremens, in which the internal administration of Chloroform was attended with most marked success. Since preparing this paper I have read another case of delirium tremens published by Mr. Butcher, in the Dublin Medical Press, in which the internal use of chloroform was attended with like success. Mr. Butcher draws attention to the lowering of the pulse when the perfect effect of the medicine was produced. This was most marked in the first of the above cases, the pulse fell from 96 to 62, it never rose above 76 while the patient was under the influence of the medicine. In the second case, I had not an opportunity of observing the effect of the medicine on the heart's action, but the number of pulsations previous to the administration was 88, which was its standard the fol-

lowing means severe or alarming in their

character, yet serve as further evidence of the successful employment of chloroform internally in the above class of diseases. In the first case opium had a decidedly injurious effect, all the symptoms were aggravated, at first I felt at a loss how to act, having read Dr. Pratt's cases, I determined to adopt the same line of treatment. Another point I would draw attention to ; in the one case, the disease was brought on by want of an accustomed stimulus, in the other, the attack followed excess of the stimulus, in both the symptoms were peculiar, and in both the result of the treatment satisfactory.

73 Craig Street, 20th November.

Case of Dislocation of the Crystalline Lens of the left Eye through the Choroid and Sclerotic Coats, from injury, with detachment of a portion of the Iris from the Ciliary Ligament. By HENRY HOWARD, M.R.C.S., Ophthalmic and Aural Surgeon and Clinical Lecturer to St. Patrick's Hospital, Surgeon to the Montreal Eye and Ear Institution, Lecturer upon Ophthalmic and Aural Surgery at St. Lawrence School of Medicine.

In page 243 of my work upon the Eye, there is a case recorded of dislocation of the lens into the pupil. Since then, I have seen several cases of dislocation of this body. I have seen it dislocated into the vitreous humour, where it kept oscillating every time the patient moved his eye. I have seen it dislocated into the posterior chamber pressing upon the iris, and requiring to be removed by extraction. I have seen it in the anterior chamber and producing such inflammation as to require extraction ; and also cases in which it produced very little inflammation, while finally the lens became absorbed. But the particulars of the following case I consider worth recording. First, because it shows how much nature will occasionally do to repair injured parts ; and secondly, how great an injury the Eye will sometimes sustain, with the preservation of sight.

John N——, aged 52, was received into the Ophthalmic Ward of St. Patrick's Hospital, April 8, 1852. The history he gave of his case was that ten days previously, he received a blow on his left eye which deprived him of sight, having been nearly blind of the right eye for thirty years. The following are the appearances his eyes presented. A dense cicatrix across the lower half of the right cornea, the remaining portion of the cornea opaque from lymph deposited in its layers. Left eye turned outwards and downwards, with no power to move it from that position, owing to a hard round tumour on the upper and internal

portion of the sclerotic and beneath the conjunctiva. The surface of this tumour pressed against the anterior and internal angle of the roof of the orbit. The natural pupil was closed, but there was a large triangular artificial pupil in the inferior portion of the iris, caused by the iris being detached from the ciliary ligament in that particular part. There was also a small pupil about the size of a small pin's head in the upper and external part of the iris, and part also detached from the ciliary ligament. The whole eye-ball was inflamed intensely. The sclerotic a deep red, the iris a dark green. I at once diagnosed the case to be a dislocation of the lens through the choroid and sclerotic coats forming the tumour described above, under the conjunctiva. I made an incision through the conjunctiva, covering the tumour, and had the satisfaction to find the lens fall into my hand, the eye immediately after resuming its proper position. I then covered the eyelids with a pledget of lint—sent my patient to bed, ordered him low diet, and one grain of calomel with quarter of a grain of opium every six hours. The next day, the eye felt very painful, and upon examining it, I found a tumour occupying the same spot from which I removed the lens the previous day, and producing the very same effects as before the lens was removed. I saw that the incision I had made the past day had cicatrized and that the sack which the lens had made for itself in the subconjunctival cellular tissue, had secreted a fluid which caused this second tumour. I then took hold of the flacid tumour in a pair of forceps and cut it off with a pair of curved scissors, after which the eye again resumed its natural position. I again applied a pledget of lint and continued the same treatment ordered the first day. The third day following I again examined the eye, and found the part from which I had removed the cyst, healed. I did not close the eyelids again, but ordered the calomel and opium to be continued. On the 13th, seven days after his admission, there was slight mercurial fætor; and, with the injured eye, he cou'd see my hand move between him and the light from the window. The inflammation of the eye was very much subdued. I then put him on the solution of biniodide of mercury, discontinuing the calomel, ten drops twice a day, and ordered that he should have soup diet. On the 19th all the inflammation of the eye had disappeared, and he was able to distinguish the different patients in the Ward. I then discontinued all preparations of mercury and put him on hydriodate of potash, two grains every eight hours. I also gave him a more free diet and permitted him to go about the Ward. On the 10th of May, one month and two days after his admission, he was discharged, having as good sight in the injured eye as is generally found after the removal of the lens by operation. The day following I met him walking through the

crowded streets as brisk as any man. During the time he was in Hospital, I every day touched the old diseased cornea with some stimulating lotion, such as the Diluted Liquor Potassæ, the Hydrocyanic acid and the nitrate of silver, so that when he was leaving, the upper and lower parts of the cornea were perfectly clear, leaving the greater part of the pupil and iris visible, of course the cicatrix across the cornea remained.

I said, this was an interesting case in two particulars. First, as the injury the eye will sometimes bear, and nevertheless vision be restored. Secondly, the effort nature makes to repair the injury. Here is a case in which, by a blow on the eye, the iris is detached from the ciliary ligament, which destroys the natural pupil, but makes an artificial one in its place. At the same time the lens is dislocated from its capsule and burst through the choroid and sclerotic coats. There is no escape of any of the other humours, but the laceration of those tissues heal, and the lens becomes imbedded in the sub-conjunctival cellular tissue. Lymph is thrown out and a regular cyst is found round the lens. Keeping it snug in its new place and producing no other evil results, preventing its results as a foreign body than the mechanical one of preventing the eye-ball being turned upwards. That form of dislocation of the lens has been long since described by authors, but no attention, that I am aware of, has been drawn to this important fact, the effort made by nature to repair the injury produced by this accident. Now this is important in a practical point of view, for, no doubt, if this patient had come to me immediately after the injury, I should have at once considered it my duty to remove the lens, and in all human probability my interference would have resulted in the vitrious humour following the course of the lens, or if not that, by exposing the wounded parts to the action of atmospheric air, a greater degree of inflammation would have followed, perhaps terminating in suppuration; or if neither of those accidents occurred, I might have had a prolapsis of the choroid, and perhaps part of the iris, through the wound. Therefore, when the lens is dislocated through the choroid and sclerotic, instead of simply saying cut down on it, through the conjunctiva, and remove it, we should rather say, use all necessary means to subdue inflammation for three or four days, and wait patiently till nature has united the wound of these tunics, then by all means remove the lens from its new position.

It is evident that the cause of the immediate blindness in this case was the effusion of blood, into the chambers of the eye, caused by the detachment of the iris from the ciliary ligament, and that the cause of blindness, when I saw the case, for there the blood was absorbed, was from the high degree of inflammation there existing in every part of the eye, which being subdued by proper means, vision was restored.

Proceedings of the 29th Annual Meeting, of the German Society, of Naturalists and Physicians. Communicated by W. HALES HINGSTON, M. D., L. R. C. S. E.

To the Editor of the B. A. Journal.

(The following paper was forwarded for insertion in the *British American Journal of Medicine*, to Dr. Hall, who, with his usual liberality handed it to us for our pages.—*Eds.*)

I took advantage of a short residence here, to be present at the Anniversary Meeting of the Society of German Naturalists and Physicians, which commenced its sittings at Weisbaden, on the 18th ultimo. Believing they are of a nature interesting to many of your readers, I send you the enclosed report; and if you think it worthy of a place in your Journal, I shall feel happy to have it inserted.

Having been enrolled a member of the Society, I regularly attended its sittings, and was afforded every facility for becoming acquainted with the business of the various sections.

The Society (of which 776 members were present) met on Saturday, 18th Sept., and after having gone through the *public* business—divided itself into seven sections, (1) Physics, Mathematics and Astronomy; (2) Chemistry and Pharmacy; (3) Mineralogy, Geology and Geography; (4) Botany and Husbandry; (5) Zoology, Anatomy, and Physiology; (6) Medicine, Surgery and Midwifery; (7) Anthropology and Psychology. As the proceedings of those seven sections, would occupy too much space in the columns of a Monthly Periodical, I send you a report of those sections only which I thought most particularly pertained to the practice of Medicine and Surgery. A considerable amount of matter, must of course be necessarily omitted.

SECTION 2. CHEMISTRY AND PHARMACY.

Professor SCHROETTER, Vienna—spoke of the cause of the shining of many bodies when heated, in which he with many others thought, that the shining of Phosphorus, was not the result of, or caused by, evaporation, but oxidation; and stated that Sulphur, Selenium, Tellurium, Arsenic &c., when submitted to a proper temperature, and under the oxidizing influence, emit light with the formation of an oxide.

Dr. BOETTGER, Professor of Chemistry, Frankfort—Spoke of the affinity of Iron and Zinc, for Chloride of Mercury. He performed a few experiments, showing that by bringing together 4½ parts by weight of Hydrarg., Sublimat, 1 do do Iron, and 2 do do water, and heating them strongly, there resulted Ferri Chlorure, Hydrarg., Chlorid and Iron Amalgam. In the same way, 1 part. by weight of Zinc, 4 do of Chlo-

ride of Mercury, and 2 do of water produced an Amalgam of Zinc. The best mixture for the production of Iron Amalgam, is 1 Iron, 2, Hydrag., Chlorid and 2 Aqua, with the addition of one drop of Quick-silver.

The same gentleman, made some remarks on the re-action of Iodine, and stated that all strong Nitric Acid emitted, when heated, fumes or vapour of Iodine, that it was the Iodine alone, that produced the vapour;—and that the experiments of Chatain, have proved that Iodine is to be met with in all waters, in the air, in earths, and in a more concentrated form in the oil of the liver of all fishes.

He was followed by Dr. VON SCYBEL, who spoke of the development of Chemical industry in *Austria*, and its present healthy and improving condition as compared with former years.

Professor HEINTZ, read a paper on animal fat. He stated the analysis of animal fats had been hitherto incorrect—and cited several examples in proof. He said that in Spermaceti, there existed Spearic Acid; Pulmic Acid (Pulmitin Sarure) then a new Acid, Cetinic Acid (Cetin Sarure) $C.^{30} H.^{50} O.^4$, crystallizable, melting about 54° ; Cent Grate, in that case resembling the Acid formed in the nutmeg, $C.^{26} H.^{46} O.^4$, melting at about 44° ; Cent, and last, Cocinic Acid, (Cocin Sarure) whose composition he had found to be $C.^{26} H.^{46} O.^4$. The soap from Spermaceti is made by digesting it with an alkali, so that the acid previously existing in the Spermaceti can be collected.

SECT. 6. MEDICINE, SURGERY AND MIDWIFERY.

Professor VOGEL, Giessen—Made some remarks on the divisions of labour. He thought some improvement might be made in Medicine relative to this matter, and trusted some gentlemen present might lay down some plan, whereby each member of the profession would know his peculiar province—and keep within it.

Professor RAN, Berne—Exhibited an ear catheter of Gutta Percha, lauded its superiority over similar instruments of different materials, and described its make.

Professor GRIESNIGER, Cairo—Spoke of a disease observed by him in Egypt, a kind of Typhus, presenting *some* of the characters of Bilious Typhoid, which had as yet been benefitted by no treatment.

Professor NAUMANN, Bonn—Related two cases of Fever, in which there was almost complete Atrophy of the spleen.

Dr. SCHUETZ, Deidesheim—Made a few remarks on the favourable results of Collodion, applied externally in Gouty swellings of the joints, and extolled the efficacy of Pyechrum Romanum in Intermittent Fever.

Professors HEYFELDER, of Erlangen, and SEDILLOT, of Stratsburg—

Dwelt at considerable length on the "Hemostatic Liquor of Pagliari. The latter gentleman said, that he had performed several experiments to prove the efficacy of this remedy. In every case he had every reason to be pleased. It seems to diffuse itself in an inconceivably short space of time, over the whole system, and its action was soon manifest. They then spoke of its local action. Professor Chelius, and others thought it an important addition to surgery. I asked, Professor Heyfelder, its composition. He gave me the name of the ingredients, but not the proportions. *R.* Alumina, Sulph? Res. Benzoin? Coque et Cola. I was referred to a periodical, which I was told contained the prescription; but have not yet found it.

Dr. HOEPLE, Heidleberg, referred to the diagnosis of fungoid formations on the mucous membrane of the buccal cavity and Œsophagus, by means of the microscope. He distinguishes as conditions *essentially different* though in *external form frequently similar*.

1. The Sore or Schwämmchen (*aphthæ* of many writers, *lactumina* or *muguet* of French authors) consisting of an exudate, which proceeding from the buccal cavity, frequently extends to the cardiac extremity of the stomach; and which, when viewed under the microscope, contains besides the proper albuminous exudate, epithelial scales, fungoid formations (which he minutely describes) in different stages of development; and along with these, other accidental ingredients, but not the ingredients of pus. This exudate never exerts a destructive influence on the subjacent mucous membrane.

2. The Aphthæ proper (*les aphthes* of modern French writers) hitherto frequently confounded with the foregoing, but in reality very different, inasmuch as they consist essentially in the inflammation and ulceration of the mucous follicle, and

3. The exudate or pseudo-membranous formation *without* the development of fungi, (*Diphtherite* of Bretonnean, *Stomatite* and *Pharyngite pseudo-membrane*, of recent French writers,) which arises under conditions more or less inflammatory of the mucous membrane, and presents sometimes a gelatinous, sometimes a viscous-coated mass, closely united (occasionally even by the development of new vessels) with the subjacent mucous membrane.

This subject is treated of at length, in an excellent work by Dr. Hoefle, entitled "Chemic und Mikroskop am Kranken Bette, (2nd. edition, Erlangen, 1850.)

Dr. BUKRING, Berlin—Spoke of the powers of restoration of the *hard palate*, he communicated a case in which an accident had occurred to the hard palate, rendering an operation for its partial removal necessary, and its subsequent restoration.

A long discussion on operations on the hand ensued. Professor ROSER, Marburg—asked whether in operations on the hand the middle joint might be saved. Was there any possibility of saving it when not diseased, and would a joint or finger, so saved be a useful one.

Dr. JOHARDT, Weisbaden—mentioned a case where *laryngotomy*, had been performed for Œdema of the Glottis, after Typhus. The patient was exhibited, and although the Œdema, had not entirely disappeared, yet did he seem perfectly at ease, breathing freely, and speaking when the tube was closed.

Dr. BROWN, Weisbaden—spoke of Tracheotomy, and exhibited a patient on whom this operation had been performed. When the tube was partly closed, he spoke more clearly and distinctly than the preceding. The relative value of these operations was discussed. The majority seemed inclined to think, that when practicable, *Tracheotomy*, should be chosen in preference, and that those cases requiring *Laryngotomy*, were not of frequent occurrence. Then as to the value of these operations in *croup*. Although, many present mentioned cases, in which Tracheotomy had apparently been the means of saving the lives of the patients, yet were the majority inclined to think that the cases of *real croup*, benefitted by operations were rare indeed.

Professor SEDILLOT,—very warmly opposed recourse to these operations, except in cases of extreme urgency, such as the presence of a foreign body. Opinions to the same effect, were expressed by Professor Baum, of Gottingen, Naumann, of Bonn, &c.

Professor GERLACT, Erlangen—exhibited a very beautiful and well prepared specimen of *Miliary Tubercle in the Choroid Coat of the Eye*. The Choroid was well injected, and the tubercles, even with the naked eye, were distinctly visible.

SECT. 6. MIDWIFERY DEPARTMENT.

Dr. RICKER, of Eltoille—made some remarks on the employment of ergot of Rye in parturition. He complained partly of the uncertainty of its operation; and partly of its prejudicial consequences to the child. Dr. Wegler, of Coblenz, agreed with him, while Drs. Mappes and Martin said, that in their practice, they had found this remedy of the greatest use; when employed at the proper time. Dr. Schneeman, related two cases of premature labour induced by the use of the *warm water uterus douche*, one with a favourable result to mother and child. Dr. Ricker, related two cases that were followed by *Endometritis puerpuralis*.

Prof. MARTIN read a very interesting paper transmitted to him by Dr. Genth, on a case of extra uterine Foetation causing a *crural hernia*

which was relieved by operation, and followed by a favorable termination.

Dr. LICHNER communicated a case in which the bones of the fœtus had escaped through the rectum of the mother.

A discussion arose on the use of chloroform in child-birth. Prof. HOHL and Dr. SCHNEEMAN said that they would use it *only in a single case*, namely, in turning, and, indeed, even then, only in very painful labor, to induce a quieter state. They entirely differed from those who had frequent recourse to such an agent.

Dr. SHNEEMAN read a paper on the treatment of *Placenta Prævia* and assured the society that after many years experience, and having given the subject his most serious attention, and having also agitated it in public, he had come to the conclusion that turning should be accomplished as soon as possible. Prof. Hohl agreed with him—Prof. Martin said that, although an advocate of this method, he would strongly advise them *not* to lose sight of the *cold water douche*, to arrest the hemorrhage until the time for turning has arrived.

Prof. HOHL desired the society to give their opinion as to the time the placenta should be allowed to remain. Dr. Schneeman, of Hanover, said, that in his opinion the placenta should be removed as soon as possible. He observed that a placenta, after the expulsion of the fœtus was a foreign body, whether partially or completely detached or adherent; whose presence might be productive of injury, might give rise to flooding and prevent complete contraction of the uterus.

Dr. BOSCHAN, of Franzensbad, spoke of the employment of Chalybeate baths, where there existed a predisposition to miscarriage or abortion, and stated that in such cases he had found them particularly serviceable.

which a large tumour or opened spontaneously into

it of inflamed breasts by the breast, with the exception administered internally at an abscess formed, he made the inflammation had par-greater ease and comfort

pal, and perhaps only old by the evaporation of

SECTION 7. ANTHROPOLOGY AND PSYCHOLOGICAL MEDICINE.

The greater part of the business of this section was of local interest only.

Dr. RICHARI delivered a discourse on the refusal of nourishment by the insane, especially by the melancholic, in whom this phenomenon is found for the most part associated with delusions about poisoning, or about their own body being totally dead, or changed; or about a divine command to abstain from eating. He referred the proximate cause of this phenomenon to an affection of the *nervus vagus*, inducing an extinction of the sensation of hunger; and maintained, that although delusions might greatly contribute to strengthen the *refusal* of nourishment, still it was rare to find this refusal originating in the delusion alone. In regard to treatment, Dr. R. was a decided opponent to forcible treatment.

Dr. RICKEN, Physician to the King of Belgians, communicated a new method of treatment, consisting in the injection of nourishment through the nostrils.

Dr. SNELL then delivered a discourse on anæsthesia of the skin in insane patients. He stated that out of 180 cases, he had found 18 attended with total insensibility of the whole cutaneous surface; from whence he inferred that anæsthesia must be a phenomenon of frequent occurrence in insanity. This paralysis of the sensory nervous filaments was to be found only in cases of severe psychical malady; but not solely in such cases as were attended with depression; it was also to be found accompanied with the phenomenon of excitement.

Dr. ERLÉNMEYER addressed the section on illusions or hallucinations of the senses, which he distinguished according to their origin into three series—the first having their origin in the peripheral extremities of the nerves; the second in the spinal cord, but being projected toward the periphery; and the third, originating in the centre of the nervous system. All three occur in patients of sound and unsound mind. In cases of the latter description, they have generally been regarded as a bad symptom, and supposed to prognosticate the incurability of the mental disorder. The speaker opposed this view in cases of the first and second class, but regarded illusions of the third class as indicative of cerebral disease at an earlier period, whereby they acquire a much worse prognosis than the hallucinations of other senses—which only in a very small number of cases have their foundation in severe cerebral disturbance. Drs. Richarz, Snell, Nebal, Vogler, Friedlieb, Dioste, Brosius, &c. took part in the discussion that ensued.

Dr. VÖGLER then opened a discussion of the question. What influ-

ence the political events of the last few years had exerted upon mental derangement, as regarded both the number of the cases and the forms of its manifestation? The Directors of lunatic asylums present agreed that the number of cases occurring of late, seemed greater than formerly—and Drs Erlenmeyer and Richarz observed, that *suicide* especially had been on the increase during the last two years. With regard to the mode in which political events operated in originating mental derangement, the psychological physicians present agreed in opinion that there was a threefold distinction to be drawn. It had been observed. 1. That political events had produced in some a disposition to insanity. 2. in others, they had stimulated predisposition to the disease into actual outbreak; whilst 3, in a third set of cases, they had merely afforded the accidental materials for an insanity which had its source in other causes.

Dr. VOGLER then delivered a discourse in which he pronounced a very decided opinion against the claims of *phrenology* in its *present* form to be regarded as a science, and enlarged upon its pernicious consequences in a moral point of view. After a lengthened discussion, in which many of the members took part, the opinion was expressed almost unanimously—that modern phrenology was void of any anatomical or physiological basis, and the division and allocation of the several mental faculties so glibly accomplished by the phrenologists was totally unwarranted and unpsychological. The presidents of the various sections then declared the sittings to be closed.

Before taking leave of these matters, I will describe an instrument alluded to in section 6, *the uterus douche*. It consists of a funnel-like basin, containing about half a gallon or more; at the lower end of which a gutta serena tube about 6 feet in length, and $\frac{3}{4}$ inch in diameter is attached, and at the lower end of this, a stop cock, also an ivory or wooden tube, resembling that of an enema pipe. This basin is filled with water (warm or cold, as the case may be) and suspended from the ceiling or attached to the wall. When required, the tube is introduced into the mouth of the uterus, the stop cock turned, and the water admitted. From known principles of hydrostatics, a column of water of such a height must possess force equal to any required, and having it safer, easier of application, and less patient than any instrument hitherto

SCIENTIFIC INTELLIGENCE.

SURGERY.

On the Application of Friction, as a remedy for some Diseases of the Joints. Illustrated by Cases.—BY EDWARD WILLIAM LOWE, M.R.C.S.E. Late House-Surgeon to St. Bartholomew's Hospital.

FOR some years past my attention has been directed to the application of friction as a remedy for certain chronic diseases of the joints. Unfortunately, circumstances have, until lately, prevented me from testing the accuracy of my opinions. I trust, however, that my observations will be found to have lost no force by the delay,—rather to have gained, not only by the casual experience which all observers must be making, but also by the mental contemplation of the subject which all thinkers must ever have.

In all cases my desire has been, and is, the discovery and promulgation of truth. I am not desirous of starting a theory which practice shall disapprove; I would prefer, and, in the present case, have endeavoured, as far as my means allowed me, to prove a theory by practice; and the following paper will be found to embody the results of that practice.

I will endeavour to make the report clear. Truthful it shall be. If, by the introduction of this plan of procedure to the notice of the Profession, I succeed in drawing its attention to a simple yet oftentimes powerful remedy for some conditions of joints, I shall be satisfied, rejoicing in the feeling that I have placed in the hands of those able and desirous to dispense it, a blessing to hundreds, in saving their limbs from the operator's knife, and in feeling, also, that I have not been idle in the field of observation vouchsafed to me.

I have entitled this paper as one showing the effect of friction as a remedy in some diseases of the joints. I have done so because friction so applied is the only comparatively new feature I have to introduce in the plan I am about to advocate, the other parts of it being in some respects similiar to those followed by the late Mr. Scott.

I do not, of course, claim for myself the discovery of a new agent in the treatment of disease of the joints, for its powers have, in a limited degree, been long known to surgeons. I merely desire to call the attention of the Profession to a plan of procedure whereby I have been able to call out those powers to their highest pitch of usefulness, and to effect by their aid cures of conditions of joints hitherto considered beyond their grasp.

In my first trials of frictions as a remedy for diseased joints, I used

it simply with a little flour, to prevent chaffering of the skin. I soon found that I had in it a powerful agent, not only by its curative powers in some cases, but also by the effects of its careless employment in others; for while, by its careful and judicious application in three or four cases, I was able to restore the joints, I learned some useful lessons by entrusting its use into surbordinate and less careful hands, the results here being the induction of attacks of acute inflammation on the previous chronic disease.

My experience fully confirmed my previously-conceived opinion in favor of frictions as a remedy for diseased joints, and I determined on more extended trials for its power.

I had, from a considerable experience, been strongly and favourably impressed with the local application of ung. hydrarg. in diseases either acute or chronic of the joints; and reflection on the subject induced me to believe that a combination of the two means might prove more powerful than either individually.

The two next cases which fell under my care I accordingly rubbed with ung. hydr., in lieu of the simple flour. The benefit was marked; the cure was expedited, and without any general mercurial effect being produced. Knowing the effect of general and equable pressure in aiding the restorative action of diseased parts, and in promoting absorption, I determined on employing its powers also in aiding the object I had in view.

This combination of means has proved a powerful union, satisfactory in the highest degree, as I trust the following cases will prove.

Before, however, I proceed to describe the cases, I will briefly explain the manner of applying the remedy.

The joint having been carefully examined, and considered one fit for the remedy, if painful or tender of pressure, I take it and gently and easily rub it with ung. hyd. for a few minutes, avoiding as much as possible to give pain. Having done this, I wrap a piece of lint around the joint, now covered thickly with the ointment, and then smoothly apply straps of plasters from some distance below to the same distance above the joint, being careful that the sustaining pressure be equable, and at the same time slight. When finished the joint should feel easy, supported rather than pressed, certainly not in any part unduly pressed.

These dressings I allow to remain on four days or a week; they are then removed, and the same process repeated, if the joint will tolerate it, the frictions being stronger and longer continued. Thus I go on, removing the dressings; and each time, as the joint will bear it, applying more and more powerful friction, until it is downright hard and quick work for the rubber; and afterwards, each time making the pressure

greater and greater, until the strapping can be comfortably borne as tight as it can be put on.

The great art in the application of the remedy being to, at first, so gently rub the joint, and so easily press it with the strapping, that as little pain as possible shall be given. A little pain you will give by the friction; it should, however, be but little, or, as a consequence, the joint will soon become hot, red, more swollen, and painful—in short, acutely inflamed, which condition will, of course, require removal by the appropriate remedies before you can resort to the friction.

If, however, attention be paid to this point, and to the easy application of the strapping, so that, when finished, the joint shall feel comfortable, it will soon become tolerant of increased frictions and tighter pressure, and the result will be, that, in a short time, a joint will bear hard rubbing and tight pressing, which, when you first began, was painful, even to gentle handling.

The one great caution I give is against a desire to do too much. Be content to advance slowly, and you will do so surely; attempt to push too eagerly forwards, and the chances are you will throw yourself backwards. Never continue the friction if it is painful, or apply the pressure so tightly as to cause pain; then you will find your joint rapidly become tolerant of the friction and pressure.

The strapping I use is emp.-robor, spread on moleskin. I find it more adhesive, and at the same time more supple, than simple adhesive. It should be cut into straps half an inch wide, and should be neatly applied, one a little over-laying the preceding one, so as entirely to cover the joint.

The friction, gradually increased from a little, may at least be made as firmly and quickly as can be done, for the space of half an hour—a longer period is seldom safe.

Towards the latter end of the cases, when the disease was well-nigh mastered, I have usually substituted a stimulating liniment, in lieu of the ung. hydrarg., and have believed that, by so doing, the end I desired was expedited.

Theory of its Action.—It is difficult clearly to prove it. I am inclined, however, to attribute to it the property of increasing the power of the circulation through the parts, and of stimulating the action of the absorbents; so that, while a more healthy vigour is given to the blood-vessels of the parts, the absorbing vessels at the same time are excited to a stronger action. This may be true, or it may not. It is, perhaps, equally difficult to prove or gainsay it. But, be it true or be it not, the fact of the efficacy of the plan of treatment remains the same.

The action of the local application of mercury is probably, as Mr.

Scott long since described; in giving tone to the vessels of the part, without at the same time producing any general mercurial effect. In this respect its action is, I believe, powerful and peculiar—essentially specific.

The pressure, at first, only acts as a means of support to the weakened vessels of the part; in this way acting as powerful auxiliary to the restoration of a healthy action in them. The subsequent pressure, however, which I apply as the joint becomes able to bear it, acts, I believe, as all pressure does, by inducing absorption.

Thus, then, the three means employed are all exerting their energies in one direction; and, while we are observing them, let us not overlook another effect they produce, viz., that of maintaining the diseased parts at a moderate and regular temperature. This is of the utmost importance; for it is, I believe, of itself capable of restoring some joints, while, on the contrary, I feel confident that, without attention to it, none will get well, be the other means used what they may. Mr. Tamplin's remarks on this subject will be borne out by all who have much to do with diseases of the joints. The firmness and stiffness of the strapping while it produces the pressure you desire, acts at the same time as a well-fitted splint, preventing much motion of the joint. The usefulness of this is so evident as to require no comment.

In the following cases, I have endeavoured to avoid too much detail, which is often tedious and useless. They will be found rather epitomes, embracing the more salient and striking points.

I have but given three cases, and I have done so advisedly, believing they would sufficiently elucidate the practice; the which a greater number would scarcely do better, whilst they would swell the paper beyond the limits of a weekly periodical.

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FIRST STAGE OF
A PULPY THICK-

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pain ; striking the sole of the foot none. Behind, and a little above the popliteal space, is a small fistulous opening, discharging a small quantity of thin ichorous matter ; a probe introduced passes only a short distance. The bearings of the joint are a little altered, tibia being drawn backwards and outwards ; by measurement, it is one inch greater in circumference than the sound one ; when at rest, it is not very painful, only aches a little. She manages to hobble rather, than walk on it, but only for very short distances at a time, and even this is extremely painful.

General Health.—She is weak and feeble, and has a troublesome cough, attended with considerable expectoration of tenacious mucus.—This she has had a long time. Auscultation detects a few large crepitations in the left apex. The resonance is but little diminished. Right apex healthy. Pain at the lower part of the back, which is occasionally exaggerated,—thinks about once a month. Has not had any menstrual discharge for the last two years. Urine scanty ; bowels regular.

History.—Is single, but the mother of two children,—youngest 8 years old. Had typhus fever 18 years ago, and has never been quite well since. Two years ago, her left leg began to fail her, more in the thigh than any elsewhere ; and once she fell down, while standing at her work, from sudden failure of power in the limb. Soon after this, a large abscess began to show itself in the back and lower part of the thigh ; also a smaller one higher up. At this time, she says, the knee was not bad. The lower abscess burst, and gave exit to about a quart of pus ; this kept on a while, diminishing to its present condition. The upper abscess now disappeared. Now, also, was the time, she says, that the knee first began to be painful, but never severely so, constantly aching and shooting. From this time it slowly increased in size up to its present condition. The pain of the joint was always increased at what ought to have been her catamenial periods. Has never had much treatment of the joint. A surgeon, who saw her early in its disease, ordered the cold lotions, but nothing more. An attempt to blister it was once made, but failed ; further than this, it has been unmolested by remedies of any sort.

Amputation has been repeatedly and strongly urged by a surgeon, but she refused to submit.

March 13, 1850, date of first application of the friction and strapping.—Ordered, ol. jecoris asel. ℥j. ter die ex cyatho lactis. Good diet.

30th.—Things wearing a promising aspect ; joint less painful, and more tolerant of the friction. Ol. jecoris not doing much, ordered, ferri sul. gr. j., ex inf. quass. ℥j., ter die.

April 10.—Joint less painful, and evidently smaller ; health improving.

The friction to be increased in duration and force ; pressure increased. Progress continuously good till, on July 7, we find this note:—

7th.—The joint is about the same size as the other ; no pain nor tenderness about it.

August 12.—Joint still keeps well ; health rather feeble ; catamenia returned.

20.—The joint is now so well as not to require further treatment. It is rather smaller than the sound knee ; painless ; motion free, easy, and very nearly as extensive as natural ; can walk on it without discomfort, and dance too. Expresses herself that it never was better in her life.

She continued tonics some time longer, and wore a bandage rolled tightly round the knee.

August, 1851.—The knee continues well, but the health is very feeble.

CHRONIC SYNOVIAL ENLARGEMENT OF THE RIGHT KNEE-JOINT OF THREE YEARS' DURATION.—CURED.

Eliza Frost, mill-girl, aged 13, thin, and dark-haired, presented herself with disease of the right knee-joint.

The joint is considerably enlarged, the enlargement having the form of the synovial membrane. Measured round over the centre of the patella, it is just one inch and a half more in circumference than the sound one. It is soft, and yielding to pressure ; but there is not any sensation of fluctuation. The swelling is smooth and regular ; handling the joint gives severe pain. The motion is very limited, and causes acute suffering. The patella is free, and the synovial membrane under it feels smooth. There is slight displacement of the tibia outwards and backwards. She cannot bear the weight of the body on the affected

stantly painful, the pain
is but little rest from it ;
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etite poor ; pulse weak
s ; catamenia not estab-

perceived the joint begin
ever. It seems to have
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n, she applied to seve-
another, but with no ef-
t out." For two years,

April 24, 1850.—The joint to be treated with friction, strapping, etc.

From this date we find the plan regularly carried out, with gradual and uninterrupted improvement of the joint, up to August 10 of the same year, when it was considered to be quite well.

It was less even than the sound joint, healthy to the feel, quite painless, and with as perfect and free a motion as if it had never ailed.

She was ordered to wear a bandage on the knee constantly.

The only medicine she took during the whole time was *fer. sul. inf. c. quassiae*, which improved her general condition, and induced the *catamenia*.

August, 1852.—The joint continues well.

CHRONIC THICKENING OF THE SYNOVIAL MEMBRANE OF THE ELBOW.

WITH EFFUSION INTO THE JOINT, COMMENCING IN CHRONIC PERIOSTITIS OF THE OUTER CONDYLE OF THE HUMERUS, THE RESULT OF A BLOW.

- M. Worsley, aged 19, mill-girl, pale and sickly looking, applied for disease of the right elbow-joint. There is a swelling over the outer side of the joint, especially in the space between the outer condyle and the olecranon; here also is fluctuation evident. Examining the condyle, it does not seem thicker or in any way larger than natural, but it is very tender to the touch; the joint is a little hotter than natural; its motions are slightly limited; they are not painful, neither does striking the hand give pain; when at rest it is quite easy.

Her general health is very feeble, and she is generally anæmic; tongue pale, indented edges; pulse small, bowels open, urine free, *catamenia* regular, appetite good.

History.—The disease is of two years' duration, first arising from a blow over the condyle. At the time this was not painful, but shortly became so. Has had considerable treatment from different surgeons, but without benefit.

March, 1852.—The joint to be rubbed with mercurial ointment and strapped. *Pot. iodid. gr. iii. ex. cyath inf. quass. ter. die.* Good diet, fresh air.

29th.—The improvement in all symptoms quite marked. Perge.

April 6th.—Still improving. Perge.

26th.—The improvement has been progressive; there is now no pain on handling the joint; it is neither more swollen nor hotter than natural; motion is also painless. Perge.

May 3rd.—The joint is quite well; feels as comfortable as the other; is natural in size and heat; its movement free. Health very good.

Merely to keep a linen bandage on it.

August 3rd.—Continues quite well.

Congleton.

SURGERY.

Result of the Ligature of the Large Arteries in 82 cases occurring in the practice of M. Roux.

The following eighty-two operations comprise the whole number of ligatures of arteries performed by M. Roux, since 1808, and were communicated by him to the Société de Chirurgie. An abstract of the paper has been published in *l'Union Médicale* :—

Arteries.	Operations.
Popliteal artery 1	1 Spontaneous Aneurism (ancient operation.)
Femoral artery 46	{ 3 Recent wounds. 2 For hemorrhage after gunshot wounds. 2 Wounds of artery in operation. 7 Hemorrhage after amputation. 1 Femoral aneurism (Hunter's operation.) 2 Femoral aneurism (ancient operation.) 2 Fungus tumour of tibia. 27 Popliteal aneurism (Hunter's operation.)
Brachial artery. 20	{ 10 False aneurism of the bend of the arm. 6 Arterio-venous aneurism. 2 Hæmorrhage after amputation. 1 Spontaneous aneurism of the ulnar artery. 1 Fungus tumour of the radius,

operation.

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Of the six cases of arterio-venous aneurism, for which the humeral artery was tied in each case, four were successful, and in two amputation was necessitated by gangrene or secondary hæmorrhage.

These statistical facts will be read with interest by the English Surgeon, by whom the thick ligature used by Scarpa is now carefully eschewed, but the small number of cases (4) in which secondary hæmorrhage occurred, will certainly bear out M. Roux in his attachment to this mode of operation. The difference between the English and French modes of conducting the ligature of arteries is so great, both in the operation itself and in the dressing of the wound, that we rejoice to find that the above facts will form part of a complete work on surgery, which M. Roux is now preparing, and of which the memoir presented to the Société de Chirurgie is only an instalment.

The Transmissibility of Syphilis by Secondary Sores.

The time of the Academy has been almost entirely taken up for the last two months, by the discussion on the transmissibility of syphilis by inoculation with pus obtained from secondary sores. This discussion has been mainly confined to M. M. Velpeau and Ricord, the former of whom maintains the transmissibility, whilst the latter, as is well known denies it *in toto*, and offered to prove the negative before a commission nominated by the Academy. This offer, however, was not accepted by M. Velpeau, but as the discussion was not likely to lead to any decision in the face of the conflicting opinions of such eminent observers as M. M. Velpeau and Ricord, it was proposed by M. Bouilland and carried with one dissentient voice, that the commission should be appointed to take into their consideration this question, so important in the treatment of syphilis. The members of the commission have not yet been named, and we are afraid there will be some difficulty in selecting them.

PRACTICE OF MEDICINE.

Aneurisms of the Arteria Innominata; their History and Differential Diagnosis from Aneurisms of the Arch of the Aorta. By T. S. HOLLAND, M. D., M. R. C. S. L.

The author opens this continuation of a very elaborate paper by proposing the question :—With what disease is aneurism of the innominata most liable to be confounded? and adds in reply :—doubtless, with aneurism of the transverse portion of the arch of the aorta; and it is by contrasting the symptoms and signs of the two affections that I shall endeavour to arrive at their differential diagnosis. In order to make this

comparison, the twenty-four most accurately reported cases (in which *post mortem* examinations were made) have been placed in a tabular form, drawn up in a manner nearly similar to that in which have been recorded Dr. Greene's * twelve cases of aneurism of the transverse portion of the arch, as his essay contains the most complete collection of aneurisms of that part of the vessel with which I am acquainted.

In the twelve cases of aneurism of the transverse portion of the arch of the aorta tabulated by Dr. Greene :

External well defined tumour occurred in.....	0
Alteration in the arterial circulation in.....	5
Dyspnœa in.....	10
Pain in.....	9
Cough in.....	12
Dysphagia in.....	9
Arterial murmur in.....	8
Voice altered in.	6
Partial Paralysis in.....	2
Double sound over the sac in.....	1
Oedema in.....	3
Stridulous respiration in.....	8
Dulness on Percussion in.....	9
Larynx dislocated in.....	0
Clavicle dislocated in.....	0
Congestion of Veins in.....	8
Hemoptysis in.....	1
Respiratory murmur altered in.....	9

In the twenty-four cases of aneurism of the Arteria Innominata tabulated by the author :

External tumour occurred in.....	21
Alteration in the arterial circulation in.....	20
Dyspnœa in.....	19
Pain in.....	16
Cough in.....	15
Dysphagia in.....	10
Arterial murmur in.....	10
Voice altered in.....	10
Partial Paralysis.....	7
Double sound over the Sac in.....	7
Oedema in.....	6
Stridulous respiration in.....	5
Dulness on Percussion in.....	5
Larynx or trachea dislocated in.....	4
Clavicle dislocated in.....	4
Venous enlargement	4
Hemoptysis in.....	2
Respiratory murmur altered in.....	1

* *Dublin Quarterly Journal of Medical Science.* New Series, Vol. 2, p. 1.

From this it is evident, he observes, that there is a well marked difference as to the probabilities of certain symptoms and signs presenting themselves in those affections, and I shall examine them in the order of their frequency in innominal aneurisms.

External Tumour.—Aneurisms tend to enlarge in the direction in which the distending force is applied; hence, as the direction of the current of blood in the innominate is upwards, and to the right side, a tumour formed in this vessel presents itself in the great majority of cases, above the inner third of the right clavicle, while the high position of the artery in the neck renders this one of the earliest symptoms. In aneurism of the transverse portion of the arch, the sac comes in contact with the posterior surface of the sternum: hence, external tumour is by no means so frequent as in the former case, and when it does occur, it generally appears at one side of that bone, usually on the left, as the current is passing to that side of the body. If the aneurism forms at the most superior part of the arch, it is resisted by the convex surface of the trachea behind, and by the sternum in front; then, passing upwards, it appears between the sterno-clavicular articulations; but in these exceptional cases the tumour does not show itself in the neck until the sac has acquired considerable size.

Alteration in the Circulation.—It is a law, that a dilatation on a tube, through which fluid is sent *per saltum*, has the effect of weakening the force of the current and converting an interrupted into a continuous stream, while the pressure of the sac on the vessel may still further lessen the volume of the fluid; but this latter condition is not essential to its production. The arteries given off from an aneurismal vessel ought, therefore, to pulsate weaker than in the healthy condition, or than the corresponding arteries on the opposite side of the body. We might, therefore, conclude, from *a priori* reasoning, that in innominal aneurism the pulses on the right side of the neck and in the right arm would be weaker than those in the left, and this is borne out by the cases before us. M. Dubrueil, alluding to retardation of the pulse, as a help in the diagnosis, says, * “that when a tumour is situated on the innominate, or on the origin of the left subclavian, the pulse of the corresponding side ceases to be synchronous with that in the opposite arm, sometimes even pulsating after its fellow, as well as being less developed;” but the diagnostic value of this sign can only be determined by future observations. Aneurism of the arch must effect equally the pulses on both sides of the body; but the tendency of the sac to enlarge towards the left should make us expect that it would in some cases compress the

* Obs. et Reflex sur les Anéurysmes de la portion ascend, et de la Crosse de l’aorte, p. 157.

arterial trunks on that side, thereby causing the left pulses to be the weaker; this is confirmed by Dr. Greene's and by other cases. A tumour of any kind pressing on the great vessels will cause comparative weakness, or even total absence of pulsation in the carotid, subclavian or brachial; hence the fact of the right pulses being weaker can only aid us in the diagnosis, *after* the aneurismal character of the disease has been established by other symptoms. Another source of error is, the occasional anomalous distribution of the vessels; this most frequently occurs in the radials, but by examining the other vessels on the same side, we shall be enabled to correct an opinion formed on the state of one artery; a clot, or any change in the interior of the vessel may lessen the circulation through it, but the obstruction is at times only temporary, and if pulsation is absent or almost imperceptible in one vessel, while it remains also weaker in the other arteries on the same side, it would increase the probabilities that the trunk from which these vessels arose was aneurismal.

Dyspnoea.—We have seen that dyspnoea is rather less frequent in innominatal than in aortic aneurisms, and this is to be accounted for by the enlargement of the aorta being prevented by the sternum, thereby causing it to press more forcibly on the trachea. Further, the lung or pulmonary artery is far more liable to be compressed in cases of aortic aneurism; and the left pneumogastric nerve, crossing the arch, brings it frequently in contact with aneurism of that part of the vessel, while the position of the right pneumogastric does not subject it to be compressed by aneurism of the innominata.

Pain.—This symptom appears to be less frequent in innominatal aneurism, and it has a marked tendency to be confined to the right side of the neck, right shoulder and arm, extending from this to the opposite side in some cases. In some, the pain was so intense as to form the chief subject of complaint, but its limitation, intensity, paroxysmal and apyrexial character, prove that it belongs to that class of pains caused by pressure on the nerves.

There is in many cases a dull, gnawing constant pain, which Dr. Law considers to originate in the changes produced in bone by the pressure of an aneurismal tumour. This double character of pain occurs independent of aneurism; and further, bone may be extensively destroyed without pain being complained of. An important question here suggests itself, viz. Do cancerous or other non-aneurismal tumours cause absorption of bone? I can only find two cases recorded that bear upon this inquiry, and if they can be considered as examples of absorption of bone, they form exceptions to a rule which, if placed beyond doubt, would form a valuable diagnostic symptom of aneurismal disease, viz.

that aneurismal sacs are the only intrathoracic tumours which by their pressure can cause absorption of bone.

Cough.—The relation of the tumours to the recurrent laryngeal nerve and the communication of this motor branch with the superior laryngeal or sensory nerve of the larynx, explains why cough should be the most frequent symptom in aneurisms of the arch, while it was present in only five-eighths of the cases of innominate aneurism.

Dysphagia.—This symptom is nearly twice as frequent in aortic as in innominate aneurism, although, looking to the relation of parts, the reverse ought, at first sight, to be the case. It is to physiology we must look for this apparent anomaly. From M. Claude Bernard's experiment, who demonstrated, that section of the pneumogastric nerves caused forcible contraction of the lower part of the œsophagus; and from the frequent occurrence of dysphagia in cases where the *post mortem* failed to exhibit marks of compression of the œsophagus, I believe, the frequency of dysphagia in aneurisms of the transverse portion of the arch is in many cases to be explained by the pressure exercised by the sac on the left pneumogastric nerve, as it passes over the arch, causing forcible contraction of the lower part of the œsophagus.

Abnormal Arterial Murmurs.—These sounds have a tendency to extend in the direction in which the current is passing; hence they are heard in the right carotid or subclavian in innominate aneurisms, while the murmur was confined to the region occupied by the sac in all Dr. Greene's cases in which this sign occurred, and if the sound was propagated in this latter affection, it would, most probably, be into the vessels on the left side, or, as has been frequently observed, downward along the spinal column posteriorly. The direction in which the arterial murmur extends, will, therefore, be a guide to us in the diagnosis, and future observations should be directed to determine if an innominate aneurism is capable of causing a murmur along the descending aorta.

Alteration of the Voice.—This, being most frequent in aortic aneurism, is to be attributed to the position of the sac, rendering it more liable to compress the trachea or recurrent laryngeal nerve, than if the disease was confined to the innominate.

Partial Paralysis.—The relations of the tumour of innominate aneurism with the right brachial plexus explains why loss of sensation or motion began in the right arm in all the cases in which it occurred, with but one exception. Weakness of the left arm was complained of in the case of aortic aneurism; partial loss of power over both arms in another.

Edema.—Began in the right side in the six cases of innominate

aneurism in which this symptom is mentioned, and may have been caused by pressure of the sac on the right vena innominata; pressure on the right common lymphatic duct may have been an additional cause of œdema.

Double Sound over the Sac.—The difference in the frequency with which this sign occurs in these affections is very remarkable, as it was heard seven times in innominatal, and only once in the cases of aortic aneurism. Two opinions are entertained regarding this phenomenon; in one, it is considered to originate in the sac; in the other, it is referred to the second sound of the heart being propagated to the tumour. In a case of aneurism of the arch of the aorta, which I had an opportunity of examining in the Royal Infirmary of Edinburgh, double sound was heard over the tumour, without the faintest murmur, while a distinct *bruit de soufflet* accompanied both sounds of the heart; this, and similar cases, argue in favour of the opinion that an aneurismal sac can *per se*, produce sounds similar to those of the heart.

Venous Congestion.—This is among the most frequent symptoms of aortic, and one of the rarest in innominatal aneurisms, but the proportion in which it occurs in the latter will be probably increased by future observations.

Alteration in the Respiratory Murmur.—This sign first pointed out by M. Chomel, and believed by him to depend upon pressure of the sac on the bronchus leading to the affected lung, Dr. Holland believes, from the experiments of M. Claude Bernard and himself, to be caused in most instances by the pressure of the tumour on the pneumogastric nerve distributed to the lung in which the modified murmur occurs.

From the foregoing review of the symptoms present in these affections, the following rule, says the author, may be deduced, viz.: *That the symptoms and signs of innominata aneurisms have a general tendency to occur on the right side of the body, and those of aneurism of the transverse portion of the arch of the aorta, on the left.*

The following conclusions, however erroneous and imperfect they must of necessity be, represent, I believe, the present state of our knowledge of the differential diagnosis of aneurisms of the transverse portion of the arch from those of the arteria innominata; and contain, I trust, some of the elements of a diagnosis that clinical observation will bring to perfection:

In aneurisms of the arteria innominata:—

I. External tumour is a frequent and early sign, situated generally above the inner third of right clavicle.

II. Arteries in right arm, and on the right side of the neck and head generally pulsate weaker than those in the left.

III. Stridulous respiration, cough, dysphagia, alteration in the voice, and dyspnœa, are comparatively rare.

IV. Pain, œdema, and enlargement of the veins, begin in right arm or the right side of neck and head; they may finally extend to the left side.

V. Partial loss of sensation or motion in the right arm is a frequent symptom.

VI. Dislocation of the clavicle, trachea or larynx, a comparatively frequent occurrence.

VII. Alteration in the intensity of the respiratory murmur occurs but very rarely, and then it is weaker in the right lung.

VIII. Abnormal arterial murmurs in the right carotid or subclavian.

IX. Pressure on the right carotid or subclavian diminished or stops the pulsations of the tumour.

In aneurisms of the transverse portion of the arch.

I. External tumour occurs comparatively rarer and later, situated generally at the left side of, or under the sternum.

II. Arteries in left arm, and on the left side of the neck and head, generally pulsate weaker than those on the right.

III. Stridulous respiration, cough, dysphagia, alteration in the voice, and dyspnœa, are comparatively frequent.

IV. Pain œdema, and enlargement of the veins, begin in left arm or in the left side of neck and head; they may finally extend to the right side.

V. Partial loss of motion or sensation in the right arm is a comparatively rare symptom.

VI. Dislocation of the clavicle, trachea, or larynx, very seldom occurs.

VII. Alteration in the intensity of the respiratory murmur occurs very frequently, and then it is generally weaker in the left lung.

VIII. Abnormal arterial murmurs loudest in left carotid or subclavian; heard also along the spinal column posteriorly.

IX. Pressure on the carotid and subclavian, on either side, has but little effect on the pulsations of the tumour.

OPHTHALMIC AND AURAL SURGERY.

Growth of Medullary Cancer behind the Eye—Removal of the entire contents of the orbit.—Recovery. Under the care of Mr. LLOYD.

ELIZABETH REEVES, aged eight, of dark complexion, stout, florid, and healthy-looking, was admitted on June 24th, 1852. Her left eye was disorganized, and pushed forwards by a tumour behind it, which projected considerably from the orbit. It presented a rounded, tense swelling, tender to the touch, covered in all parts by the everted and very vascular conjunctiva, and yielding to the finger a deceptive sense of fluctuation. The upper lid was distended, the lower one everted. On its outer and under part were seen the remains of the collapsed eyeball, the cornea of which was shrunken, white and opaque. She did not appear to suffer much pain in the tumour itself, excepting when handled, but she often complained of headache, which was chiefly referred to the forehead. The greater part of the day as well as the night she usually spent in sleep, from which she frequently awoke suddenly, screaming, as if in pain or a state of alarm. When awake, although in full possession of all her faculties, she appeared heavy and deficient in animation. Her pulse was quiet, tongue clean, and appetite fair; but she frequently vomited her meals,—a symptom which had been troublesome for some time previous to her admission. The history of her affection was, that the eye had been considered weak for more than four years, frequently exhibiting a bloodshot appearance; its protrusion from the socket had, however, been first noticed only eight months ago, and had since rapidly increased. She had not suffered from any form of convulsions, nor had her sleep ever been interfered with.

Notwithstanding the apparent health of the child, no doubt was felt by Mr. Lloyd as to the real nature of the disease, but there still remained the important and difficult question as to the exact limits of its extension. If travelling along the course of the optic nerve it had already involved the brain, an operation which must necessarily leave behind it a considerable portion of the growth would be worse than useless. It seemed desirable, therefore, to defer for a few weeks the contemplated extirpation of the orbital contents, in order to watch more narrowly the suspicious symptoms, which made cerebral implication seems not improbable. During that time the vomiting ceased entirely, but the headache, drowsiness, and hebetude of manner still existed, unattended, however, with convulsions, paralysis, or disorder of intellect. A consultation was accordingly held, in which Messrs.

Stanley, Lloyd, and Paget, took part; and it being considered to be quite possible for all the symptoms of cerebral disturbance present to be due simply to distension of the orbit, it was determined no longer to defer the operation.

July 27.—The patient having been put under the influence of chloroform, Mr. Lloyd first enlarged the palpebral aperture a little at each angle, and an assistant holding forwards the diseased mass by means of a vulsellum, he then proceeded to dissect out with curved scissors and scalpel the whole contents of the orbit. Every structure was carefully removed, including the conjunctiva of the lower lid. Considerable hæmorrhage took place during the operation; on the completion of which the orbit was filled with lint, covered with powdered matico, and the bleeding at once ceased.

The removed mass, which was much broken down by the necessary manipulations, consisted of a pale grey substance, somewhat lobulated, and of brain-like consistence. Imbedded in its front lay the remains of the eye, which was shrunk to the size of a small bullet. The sclerotic, quite sound in every part, contained a dry black mass, very hard, and almost bone-like, probably consisting of the concrete remains of inner tunica, coloured by the choroidal pigment. The optic nerve at the cribriform opening was unaffected with disease: and, as not a particle of medullary structure existed within the eyeball, it appeared certain that the growth had commenced and progressed throughout external to it. In the middle of the tumour was a small mass of much firmer consistence than the rest, homogenous, yellow, and oily-looking; it was the size of a bean, and much resembled in appearance crude tubercle. Examined microscopically, the juice of the white structure exhibited in perfection the usual features of medullary cancer.

31st.—No hæmorrhage or unfavourable symptom has occurred. The upper lid is, however, much swollen. Mr. Lloyd ordered three leeches to be applied to it.

August 2d.—She takes her food well and sleeps comfortably; pulse quiet; skin cool; tongue clean; states that she has much less pain in the head than before the operation. The eyelids are very much swollen and inflamed. Hydr. chlorid. gr. i. pulv. Jacobi gr. ij., fiat pulv.; nocte maneque sumend. Hirud. ij.; part. affect.

4th.—The lint was removed from the orbit without difficulty; no bleeding took place. The lids are less swollen. Ordered to omit the medicines, and to dress the whole, surface exposed, with a lotion of the chloride of zinc (gr. v. ad. ℥j.)

From this date the progress was very satisfactory; the tumefaction of the lids subsided, and, falling flat down in front of the orbit, they com-

pletely concealed the mass of firm granulation structure by which its cavity was filled. She entirely lost her headache and drowsiness, and became cheerful and sprightly.

Oct. 28.—The little girl has now been quite well for some time: is entirely free from pain, and plays about as usual. There can be no question as to the great benefit which has up to the present time accrued from the operation.

When malignant disease occurs in childhood, it almost invariably attacks the eye itself, and we believe that the above case is one of the first, if not the first, put on record, in which the deposit began in the structures external to it. Mr. Travers, without adducing instances, vaguely asserts that such is occasionally the fact,—a statement which Dr. Mackenzie appears strongly inclined to doubt. There can be no question as to the great rarity of the occurrence, and that in a very large majority of cases the growth commences in the eye, and, after piercing the sclerotic coat, then gradually invades the surrounding structures. Speculations as to the precise tissue primarily affected, however interesting, or unfortunately futile, as operations are never performed before the disease has involved more than one.

Respecting the symptoms which, in the above case, excited apprehensions of cerebral mischief, the sequel has, we think, proved them to have been due merely to the pressure occasioned by the morbid growth. We shall have occasion, in one of the following cases, to point out their occurrence with a severity even yet more ominous in a case in which the disease an hydatid cyst, was strictly limited to the orbit.

*Medullary Cancer of the Eye and surrounding parts.—Removal.
Recovery.* Under the care of Mr. PAGET.

William Nevil, aged two years and a-half, a very pale and miserable looking child, was admitted July 28, 1852, on account of disease within the left orbit, by which the eye had been quite disorganised. It projected from the orbit as a rounded swelling, by which the upper lid was distended and the lower everted, and presenting a very vascular and oedematous conjunctiva. At its inner part was a portion in a black and sloughy condition, below which the remains of the now opaque cornea could be distinguished imbedded in the mass. To the finger the tumour was softish, elastic, and gave the same of pseudo-fluctuation so commonly felt over masses of medullary cancer. The child was accustomed to sleep a great deal, but always appeared to wake in suffering; he complained of his head and was very fretful. All the history that could be obtain-

ed was, that in November, 1851, he had had an acute inflammation of the front of the eye, and that in February, 1852, the eyeball had been first observed to protrude.

From the appearance and feeling of the tumour, together with the very cachectic condition of the child's health, but little doubt could be entertained as to the nature of disease. It was, however, thought best to defer the operation a little time in order to give opportunity for estimating more closely the probability of the existence of cerebral implication.

August 21—Having decided that the pain in the forehead was not more than might fairly be accounted for by the distended condition of the orbit, Mr. Paget determined at once to extirpate the whole contents of the latter. The child having been brought into the operating theatre and placed under the influence of chloroform, an exploratory puncture was first made into the upper part of the mass, by which the previous opinion as to its nature was confirmed. The conjunctiva was then divided round by the margins of the orbit, and the mass behind drawn forwards by an assistant by means of a strong ligature passed through its centre, Mr. Paget proceeded to remove the whole by cutting behind it with a curved blunt-pointed knife. The cancerous matter was found so abundantly diffused among the muscles, etc., in the back of the orbit, and the whole together were in such a soft, half-diffuent state, that the latter part of the operation consisted rather in scraping out the cream-like stuff than in any process of dissection. Pretty profuse bleeding took place, but it was checked by filling the orbit with lint and the patient was then sent to bed.

During the first two days all went on very favourably, but on the 24th hæmorrhage to the amount of an ounce occurred; it was, however, easily arrested by pressure, and did not recur. The orbit became filled with firm granulations, which were covered in front by the lids. The child was discharged from the hospital in the beginning of October, having then much regained his health, and the parts being quite healed.

Examination of the diseased Growth.—The remains of the collapsed globe were placed in the front of an obscurely lobulated mass of soft and brain like substance, of a greyish-white colour in most parts, but very vascular, and even ecchymosed, in others. No trace of the optic nerve could be found, and the growth appeared to have communicated with the interior of the eye through the cribriform opening, as the sclerotic, although thin, was entire in every other part. Within the eyeball itself was a mass of white, pulpy structure, the size of a marble, and in its centre a small, but well-defined lump, as large as a horse bean, which was solid, firm, and of a yellow colour, much resembling firm butter. The naked eye examination was confirmed by the microscope in its con-

clusion that the whole was an example of medullary cancer. Respecting the little yellow mass just described, we may observe that it is a condition very frequently found in malignant tumours, and that it is, with much probability, generally considered to be a kind of fatty degeneration of the cancer structure. An explanation proposed by some, that it is an altered condition of the natural fat of the part, is negatived by the above case, as no fat exists naturally in the eyeball.

It would be premature to lay any great stress on the successful event of the two preceding cases as indicating the property of operations in the advanced stages of malignant disease within the orbit. They have recovered, it is true, but there is no telling how soon the disease may return. We hope at some future period to lay before our readers the history of their future progress, and to compare it with that of several others now under our observation, in which no operation has been performed or is contemplated. In the meantime, however, we cannot help observing, that it was impossible not to be struck with the improvement which resulted in each of these children within a short time after the operation. In the case under Mr. Lloyds' care, a good contrast was offered by the admission into the same ward six weeks after the operation had been performed on her of a little boy suffering from the same disease. While the one was frolicking about the room in all the joyousness of childhood, free from every source of pain or disquiet, the other although, not much emaciated, formed, as he sat on his mother's knee nursing his aching head, and evidently in a state of constant suffering, as pitiable an object as could well be imagined.

*Acute inflammation of the lachrymal gland—Displacement of the Eyes
Treatment by mercury.—Recovery.* Under the care of Mr. STANLEY.

Elizabeth Lipsham, aged 29, married, admitted May 10, 1852, on account of acute inflammation within the left orbit. She states, that four days ago, while walking in the street, she was seized with sudden pain in the eye, attended with a profuse flow of tears. The pain continued, and in the evening much redness and inflammation was apparent. On the following morning, she observed that the eye was pushed forwards, and at the same time the pain had become extended to the forehead. During the next three days the protrusion increased, and the pain was so constant and intense that she could not sleep at all. She had no distinct rigors, but a general feeling of chilliness during most of the time. At present her skin is hot; pulse 60, of moderate volume, and

soft ; tongue coated. The protrusion of the eye is so great that the lids do not cover it ; the upper one is tense, and the lower one everted. The conjunctiva is tumid and very red ; there is copious lachrymation. The eye projected at least half an inch from the socket, being pushed downwards and inwards ; it is so far fixed as to be capable of very little motion. The pupils of the two eyes are of equal size, but that of the right acts more sluggishly than the other. Vision is dim, and during the night she is troubled with muscæ and scintillations. On pressure above the eye, the parts are felt to be firm and tense, and great pain is given. The swelling is greatest at the upper and inner part of the orbit, where the sulcus is more than obliterated, and there is considerable rounded prominence.

Milk diet. C. C. ad ℥viii. temp. Pil. calom. cum jalap. gr. x. statim. Haust. antim. Potass. tart. cum magnes. sulph. ℥ij., 6tis. horis.

11th.—Has slept better during the night, and the pain is much relieved. The swelling above the eye is, however, rather increased, and the upper lid is very tense ; no sense of fluctuation can be detected. Mr. Stanley, fearing the effects of the tumefaction, and apprehensive of the existence of deep-seated suppuration, introduced a straight double-edged bistoury through the upper lid, for at least an inch and a-half into the orbit, just below its upper margin ; a small quantity of blood only escaped. Pt. med

12th.—The condition of the eye is much the same, and the swelling not at all diminished. The wound made by the puncture has healed, and no matter has escaped. The pain is very much relieved, and she feels more comfortable.

The medicine is omitted on account of diarrhœa.

21st.—Is sitting up in bed, and states that she feels much better. The swelling is certainly a little subsided, and the conjunctiva is less congested ; the movements of the eye are much more free.

26th.—A slight increase of inflammation having occurred, Mr. Stanley ordered eight leeches in the temple, and the haust. antim. potass. tart. to be taken every six hours.

28th.—The medicine has depressed her a good deal, but not relieved the condition of the eye. She has slept badly, and complains of throbbing pain in the eyeball. The sclerotic is much congested, the iris dull and muddy, and the pupil irregular ; on the posterior surface of the cornea are some small white spots. Ordered C.C. temp. ad ℥vj. R Calomel, gr. ij., pulv. opii, gr. ¼, sextis horis sumend. Broth diet.

30th.—Her gums are slightly sore, and the condition of the eye in every respect much improved. Pt. pil. o. n. ad.

June 4.—Rapidly improving. The inflammation of the tunics has quite subsided, and the swelling is so much lessened that the lids can be closed with ease. Gums sore. To omit the pills.

9th.—The eye has now returned to its natural position, can be rolled with ease in any direction, is quite free from inflammation, and has perfect vision. Discharged.

Although acute inflammation of the lachrymal gland is of very rare occurrence, at any rate in the adult, yet there can be little doubt that such was the nature of the above case. The position of the swelling, the direction in which the eyeball was displaced, and the fact that, although the tumefaction lasted for near a month, yet no suppuration occurred, all strongly support such a diagnosis. Had such great and acute swelling resulted from inflammation of the cellular tissue of the orbit, an abscess would have been the almost inevitable consequence.

There can be no question as to the propriety of making free exploratory incisions into all swellings within the orbit which by their size in any degree endanger the integrity of the eye. Such a measure can do no harm, while it may be the means of preserving the sight; and the surgeon would act unwisely who, under such circumstances, deferred it, because he could not detect actual fluctuation. It is much better done too soon than too late.

The benefit derived from the use of mercury was, in the above case, most marked; and it must not be forgotten, that other depressing remedies had failed before it was resorted to. In the first severity of the

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before six o'clock.

He was not quite sober, but walked into the passage and up stairs to his room very steadily. He had not been there long when he became sick, and vomited considerably, complaining of a fall. He did not say that he had been ill-used. He had gone out between five and six o'clock on the Sunday evening for a walk, and was away all night. About a quarter to one in the afternoon witness went for a medical man, but deceased died before his arrival. Thomas Lewis, the deceased's brother, said he was with him at the Feathers, in Oxford-street, at about half-past one on Monday morning. The deceased went outside, and in a minute or so the potman came running in and told witness his brother had been struck by some man. Witness instantly went out, and found deceased lying bleeding on the pavement; he then pursued and overtook the assailant, seized him, and, meeting with two policemen, told them the circumstances, but they refused to detain the man, remarking, "You are all a drunken lot, get away with you," and the man escaped. Mr. Newington, surgeon, said he had made a *post mortem* examination of the body. There was a large fissure sufficient to admit the hand on the right side of the head, and extending down towards the left ear. There were from six to eight ounces of extravasated blood spread around; and there was also an extensive laceration of the brain sufficient to admit the ends of four fingers. The skull was a very thin one. The Coroner said that it was a most extraordinary thing, and one he had never seen equalled in the whole course of his experience, that a man suffering from injuries sufficient to kill a dozen men should walk home in his senses, and remain so up to the time of his death, without ever showing the least symptom of such fatal hurts. Under all the circumstances, the safest course would be an open verdict. The jury consulted for some time, and eventually returned a verdict to the effect "That deceased died from laceration of the brain, caused by violence, but that how such violence was produced there was no evidence to show."—

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Canada Medical Journal.

MONTREAL: DECEMBER, 1852.

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all cases of a doubtful character, in addition to the usual methods of ascertaining the nature of diseases, they bring to their aid a critical Chemical Analysis of the Blood, or Urine, or both, where necessary; by which they are enabled to come to a *sure conclusion*, as to the nature and cause of the disease, and proper and best means of cure. They also give information that they possess specifics, or certain infallible remedies, for the following troublesome and often dangerous complaints, viz:—Erysipelas, Bronchitis, Catarrh, Inflammation of the Eyes, (either Scleritis or Conjunctivitis) Croup, Scarlet Fever, Chorea, (St. Vitus Dance,) Ague and Fever, Quinsy, Sore Mouth in nursing females, Hooping Cough, and for several other diseases. Diseases of the eye, the ear, the skin, whether requiring medical or Surgical aid, will be treated in a satisfactory manner. Complaints peculiar to the Female constitution, will be managed with care and delicacy, and unrivalled success.

Patients unable to come to Port Hope, can be visited at their residence, at a very moderate charge.

Who this Dr. John Gilchrist is we know not, but we have been informed that Charles M. D. Cameron was a student last year at McGill College, and having procured a license from the College of Physicians and Surgeons of Lower Canada, he turns his advantages to account, and despising all the notions instilled into him during his pupilage, he enters boldly the walks of * * * * *

We beg to remind the President of the College of which Mr. Cameron is a member, that it comes within the scope of his duty to take cognizance of such conduct, and we beg to inform him, that, however unpleasant the task, it nevertheless devolves upon him to visit, with the censure of the college, this scandalous attempt to lower the character of the profession. With the characters of the parties themselves we have nothing to do, they ought to be the best judges of the amount of injury such an advertisement is calculated to effect, and as they have not hesitated to publish it, they must be considered beyond the pale of the profession, and cannot, of course, be considered any longer as regular practitioners, and, consequently, should be expelled from all Medical Associations, in which they may be enrolled.

Notice to Subscribers.—We now present our readers with the tenth number of the *Canada Medical Journal*, and beg to remind them that we commenced it, with the understanding that their subscriptions were to be paid in advance, and notwithstanding that we have made several appeals to their sense of justice, we have not received one-fifth of the subscriptions due to us. The matter resolves itself into a very simple form—the Editors do not intend, (as all their predecessors have done) embarrassing themselves with the expenses of

a periodical which should pay its own expenses, they do not intend paying for printing, &c., out of their own pockets, they believe that in giving their time and attention to the management of the Journal, they do as much as can reasonably be expected from them, and consequently, if those indebted to them do not pay up before the termination of the volume, they must be content to do without the *Canada Medical Journal*. The Subscription list is larger than any other Medical Journal published in this Country, has ever possessed, and making all allowance for a certain percentage of non-paying *readers* (we cannot call them *subscribers*,) it should amply pay all expenses connected with its publication.

We have received from various quarters in this country and abroad, expressions of satisfaction with the manner in which we have performed our duties. We have procured contributions for the original department, which have been extensively quoted from, and copied into the Medical Periodicals of Great Britain and the United States, and we have reason to believe we have made such selections for our Scientific Department, as have met with the approbation of our country readers, and were calculated to supply the kind of information they most needed. In opening our pages to our French Canadian brethren, we were led to believe we supplied a large and intelligent portion of the profession in this part of the Province with a medium for communicating their views and making their researches generally known to the profession. It is not our fault that they have not more frequently availed themselves of this opportunity. We have also abstained from questions of a purely party character, and except on a recent occasion have excluded all matters of a personal nature. On that occasion we were forced to the step in consequence of a liberty taken with our name and reputation.

Having now spoken out plainly our intentions, and what we require, we place the matter, before our readers, and trust to their sense of right.

Ottawa Citizen," and are glad to see in our pages. We trust that the General Hospital, will contribute to the interesting case.

HOSPITAL.

Reference is made to the following letters, which were sent to the parties whose names appear in the list, referring to the efficiency and use-

fulness of the Bytown General Hospital. The absurdity of "religious tests" is not heard of in connection with it—the only claim to admission being distress. During the past year upwards of two hundred patients have been admitted, with almost every description of disease, and it is gratifying to know that a great majority of the cases have been treated with success. Many difficult cases of Surgery have passed through the hands of the attending Physician, one very recently of more than ordinary interest, known to the profession as "*Strangulated Hernia*." With respect to the Medical attendance nothing more could be desired. Dr. VanCortlandt's high reputation is established by a long and eminently successful practice, and Dr. Cleophas Beaubien, we have good reason to believe fully merits the confidence of those who conduct the institution, and of the community. The institution is, we believe in a flourishing condition, and the support awarded to it is well deserved. Too much credit and consideration cannot be conceded to those truly humane and charitable females who watch over the afflicted with maternal solicitude, and unremitting vigilance.

Bytown, Nov. 15, 1852.

Doctor VanCortlandt,

Sir,

I have the honor to inform you that our Attending Physician, Dr. Cleophas Beaubien, has expressed a desire to obtain a Consulting Physician for the Hospital, to which request I most cheerfully concede; and as, both during the six years you officiated as our Attending Physician and subsequent thereto, you ever evinced marked attention, our choice unhesitatingly falls on you.—May I request therefore, you will inform me whether you have any objection to act in the capacity of Consulting Surgeon to the Bytown General Hospital.

I have the honor to be, Sir,

Your most obedient Servant,

Sister E. BRUYERE,
Superior.

Dr. VanCortlandt.

Bytown, Nov. 16, 1852.

Madame la Superieur,

I beg leave to acknowledge the receipt of your letter of yesterday's date, offering me the distinguished post of Consulting Surgeon to the Bytown General Hospital.

An uninterrupted attendance of six years duration, as the ordinary Medical Attendant to the Institution, served to convince me fully of its great usefulness, whilst your selection of me as first Physician there-

of, differing as I did from you in religious opinions, could not fail to convey very favorable sentiments of your liberality on the point. Under these circumstances, and so long as you do not make a Medical man's religion paramount to his usefulness, I shall accept, with pride, this distinguished mark of your favor, and feel happy to co-operate with a gentleman of Dr. Cleophas Beaubien's character.

I have the honor to be,

Madam la Superieur,

Your most obedient Servant,

EDWARD VANCORTLANDT.

To Sister Bruyere,

Superieur Soeurs Grises, Bytown.

At the request of a subscriber we insert the following. It is well that medical men should know the law upon the subject.—Ed.

LAW REFORM WITH A VENGEANCE!!

Previous to the sitting of the Division Court No. 1 of this County in August last, the Clerk caused a summons to be served on Dr. Moore a Medical Practitioner of long standing in the country and in "actual practice," to attend that Court as a jurymen. The Doctor considered that medical men were exempted in all civilized countries from serving on juries, for the reason that from the nature of their professional duties it is often impossible for them to do so. He also thought that they were exempted by Act 13 & 14 Vic. chap. 55, and that the summons was served by the functionary who fills the office of Clerk, as a mere piece of *petty annoyance*, he therefore enclosed the summons,

to the matter. However on the persons met the Doctor in the had been called in Court as a jurymen, and as soon as the case was presented to the Judge, stating that he considered it impossible for medical men to serve. The Judge replied that he considered it perfectly proper that the Clerk did perfectly well in sending reading part of the Division Court, repeating the few sentences, repeating the same, and when he had done reading he repeated "I will think of it."

At the last sitting of the Court on Wednesday last, Dr. Moore again appeared in Court and demanded judgement that he might pay his fine. Judge Fairfield replied that the case was not then under consideration, and that it would be time enough to appear when called upon, but that by the Division Court Act Medical practitioners were obliged to serve as jurymen, and that if they refused he would fine them. The Doctor stated that he would refuse, and that he would appeal to the medical profession, and to the Legislature. Thus at present the matter stands, and we will only observe that if Medical men are obliged to serve on the juries of the inferior Courts, it must arise from an oversight in the Legislature, and will be remedied as soon it becomes generally known.. It cannot for a moment be supposed that an enlightened Legislature would compel a Physician or Surgeon to abandon a patient in the hour of danger and of suffering for the purpose of dancing attendance on their petty Courts. One thing is certain, Judge Fairfield has been the first to raise the rod which he now holds "*in terrorem*," not only over the head of Dr. Moore but over that of every other medical practitioner in the Province.

New mode of taking Cod-Liver Oil.

SIR,—I have read Mr. Selwyn Morris's "New Mode of taking Cod-Liver Oil," and quite agree with his general principle of using a bitter infusion. I have been in the habit of recommending to my patients the use of pale or bitter ale as one of the best vehicles in which to take the oil, be it cod-liver or castor. This description of ale being intensely bitter, and tonic to boot, from the large quantity of hops used in its manufacture, serves the purpose admirably; and another advantage is, that it can be obtained more readily than a quinine mixture or an infusion of quassia; and, moreover, being a stimulant, the stomach is also beneficially excited to retain and digest the fatty oil. As an extempore vehicle, I have frequently used the concentrated infusion of gentian (of course, diluted) with good effect; but when there is time to prepare an infusion, I would certainly give the preference to the quassia.*

* NOTE.—We have received a letter recently from one of our patients who, whilst in Dublin, consulted Dr. Graves, was advised by him to take Cod-Liver Oil, in infusion of quassia, which, no doubt that eminent Physician has found to conceal the taste of that valuable though disagreeable remedy. R. L. M. D.

CANADA MEDICAL JOURNAL.

VOL. I.

MONTREAL: JANUARY, 1853.

No 11.

ORIGINAL COMMUNICATIONS.

ART. LVI.—*False Aneurism of the Femoral Artery, the sequence of Abscess—cured by ligature upon the External Iliac.* By S. S. STRATFORD, M.R.C.S.L., Toronto.

In the Spring of 1845, I was called by Dr. Corbin to see a son of Mr. Leek, a wealthy farmer residing in the township of Oxford East, C. W. The boy was about 15 years of age, and was affected with a very large abscess in the right thigh; the whole thigh was greatly swollen, especially its anterior and internal portions, which swelling extended from the groin to the ham. The skin was red, shining, and pitted upon pressure, while an examination distinctly indicated a fluctuation. It had been progressing for a month or six weeks, notwithstanding the means used to arrest it, and now distinctly presented all the indications of a very large and extensive abscess.

I had been called to consult as to the propriety of opening the abscess, and immediately decided as to its absolute necessity; accordingly I made an opening in a dependent position upon the inside of the thigh, about its centre—good healthy looking pus freely escaped, amounting to about a pint—not a drop of blood was lost, and to ascertain the extent of the abscess I introduced a large probe, upwards, as high as the groin; a tent was introduced and applied around the limb. Upon calling the patient I found that the matter which had collected was regularly evacuated, and was now the swelling of the limb was greatly reduced, which I expected would be the case, and the patient would get well.

To my surprise, however, in about six weeks time, I received a message from Dr. Corbin, saying that matter had again collected in the thigh, and he wished that I would come over and open it once more. Accordingly I went to see the patient, and found the thigh greatly swelled—the swelling occupied exactly the same position which the original had previously done—it extended from the groin to the ham. The skin appeared red and shining, but did not pit upon pressure; there was distinctly a fluctuation to be observed; there was something about the swelling that did not present to my mind the distinct idea of an abscess, but that it was an aneurism certainly did not enter into my imagination; there was not the least pulsation present, while its recent history certainly misled both myself and the Dr. into the belief that the swelling was the sac of an abscess again refilled with pus; the consequence was, that we decided upon puncturing the swelling. I selected a spot that I thought the most prominent and likely to make a good opening for the exit of matter, but after introducing the lancet a considerable depth, I found that no pus was evacuated, which created my surprise. Dr. Corbin then took the lancet and introduced it into another spot, and out flowed a stream of arterial blood. I was at once alive to the position of things, which was fully verified by the application of my ear to the swelling; the *bruit de soufflet* was distinct without the stethoscope—in fact, the lancet had entered into an aneurismal sac, which I only had the good fortune to avoid, by sticking it into the condensed fibrine, the walls of the sac. Having placed the finger upon the opening to restrain the hæmorrhage, I considered if the femoral artery could have been wounded by the lancet, but found that such could not possibly have been the case, for the opening was completely out of the line of that vessel, it was below it, and over the *adductor magnus*, while the blood was not propelled *per saltum* from the wound. I was determined to see the extent of the disease, consequently I introduced the same probe into the wound, and found that the aneurism extended to very nearly the same dimensions as the former abscess, from the groin to the ham. Having applied a compress and bandage, I at once pointed out to the friends of the patient the nature of the disease, and assured them that the only chance of saving the life of the boy was to tie the external iliac artery. The friends were first annoyed at our mistake, and refused their consent, but as I assured them the boy would bleed to death in a few days, unless the operation was done, and that quickly; upon a slight hæmorrhage occurring, they changed their mind, and I was sent for to do the operation. Accordingly, on the fifth day after the opening, assisted by Dr. Corbin, I commenced the operation in the following way:—Having placed the patient upon a table with his but-

tocks somewhat raised, I cut through the skin and areola tissue, commencing at about the outer pillar of the abdominal ring, going upwards and outwards, terminating about half an inch above the superior spinous process of the ilium, and an inch and a half inwards towards the median line. The aponeurosis of the external oblique was then divided upwards upon a director, the lower end of the external oblique was then raised, the spermatic cord was drawn upwards and inwards with a blunt hook, the areola tissue covering the sheath of the vessels, which were both seen and felt pulsating, was slit up on a director, the sheath itself was next opened, and an aneurismal needle armed with a ligature carefully placed under the artery. Having assured myself that the ligature was duly placed around the vessel, I tied it with a firm knot, when pulsation below the ligature immediately stopped. A suture was put into the divided edges of the wound, and this was duly supported with straps of sticking plaster. The patient was put to bed, having borne the operation without an exclamation. After the operation, the limb became blue and cold, but by the application of temperate heat for two or three days, the limb completely regained its normal temperature, and the circulation was fully established by the anastomosing branches, no further bleeding occurred, the *bruit de soufflet* had subsided after the operation, and the wound granulated and healed, the ligature coming away about the fifteenth day. By degrees the swelling of the thigh subsided, the fluctuation gradually became more obscure, the skin returned to its natural colour, and in the course of five or six months almost all the thickening and hardness had been dissipated, while the boy used the limb but with little less facility than the left, and at the present time even the slight halt in his gait has entirely subsided. Upon pressing in the groin, not the least pulsation was discoverable in the course of the femoral artery, while a cord-like feeling indicated that it was completely obliterated, and save this symptom and the scar made by the operation,

not in the limb.

a consideration of the aneurism, and secondly, try to perform.

nique as to its character; seat of that disease; abscess, have in all, and it must have been in their course. It

to be closed by the is usually the case unisolated, it died, the

dead separated from the living parts, so that the patulous mouth of the vessel drove the blood into the old sac of the abscess, which became gradually distended with it, and became an extensive false aneurism; the previous thickening and consolidation of the areola tissue which formed the walls of the abscess, now became the sac of the aneurism, and prevented the blood being diffused through the limb, as in all probability would have been the case at the separation of the slough in the artery, had not the abscess preceded the aneurism, and under such circumstances would have had all the effect and character of traumatic diffused aneurism.

Again, as to the propriety of the operation performed, I think there could be no exception. Certainly the rule in surgery, to tie both the extremities of the injured artery, so plainly and strenuously laid down by my venerated preceptor G. J. Guthrie, Esq., did not hold good in this instance; although the facts in this case might have constituted a variety of traumatic aneurism; yet in all its conditions it bore a more natural semblance to false aneurism. It was maintained by one of the first surgeons in Canada, that the seat of the aneurism should have been laid open, and the two extremities of the artery tied, to ensure against all the chances of secondary hæmorrhage; such might possibly have been the rule, but it was certainly not admissable in this case. How could we be certain when we should find the bleeding vessels, and how many might have presented themselves? Picture to yourself the aneurismal sac laid open, nearly from the groin to the ham, and after you had rolled out the vast clots of black blood, and come upon the thick fibrinous wall of the sac, many bleeding mouths might have presented themselves to your notice; perhaps the extremity of the femoral artery throwing out a powerful volume of blood, next the patulous mouths of the profunda femoris, and perhaps many other branches of the main artery, sending a reflex current, all greatly enlarged, and now preparing to take on their anastomotic duty, as the main carriers of the blood, and nourishers of the limb; and even did you find the bleeding mouths of the vessels, could you possibly have tied them? You would have been obliged to follow their course to where they were truly sound, before you could have put a ligature upon them; no, the idea was fearfully preposterous, and I am convinced, that the only resource was a ligature upon the external iliac; and even was this act contrary to a rule in surgery, but the end has sanctified the means, and points to a legitimate exception to that rule.

ART. LVII.—*Cases in Practical Medicine.* By A. H. DAVID, M. D.,
Physician to St. Patrick's Hospital, &c., &c., &c.

Continued from page 528.

Acute Rheumatism treated by Lime Juice.—The first case I shall mention was one of very great severity. It was that of Elizabeth Connor, and alluded to when speaking of the treatment of dropsy by external diuretics. She was admitted into the medical wards of St. Patrick's Hospital in the early part of last summer, having, according to her account, been suffering for some weeks, from acute rheumatism, which had attacked every joint in her body, and as she was residing in a distant part of the country, could not obtain medical aid, and was on admission, extremely emaciated, from her lengthened and severe sufferings. She could not turn from the position in which she was placed, and indeed, so great were her pains, she shrunk from the slightest touch. After a close and searching examination, I proved to the students, that notwithstanding the number of weeks (6 or 7) she had labored under the attack, there was not yet any cardiac affection, and as the disease was still *acute* it was a good case for trying Lime juice, and I determined to give this remedy a fair and impartial trial, in this—one of the worst cases of rheumatism I had ever met with. The remedy stood the test well, and certainly cured the case, and in a shorter time I believe, than any other remedies would have done. On the day of admission I merely ordered her a sharp purgative consisting of ℥j. Sulphate of magnesia, with $\frac{1}{2}$ gr. Tart. Emet. and on the following day commenced the use of Lime Juice, by giving her ℥ iv. three times a-day, which on the second day was increased to ℥ vi. and on the fourth to ℥ viii. each dose. On the 9th day after admission, she was able to turn herself in bed, and bear examination without pain, which she had not been able to do for at least 7 or 8 weeks. I still ordered the same large quantity to be continued, and she went on improving daily, till diarrhoea came on, and fearing the lime juice might be the cause of this symptom, I discontinued it, and gave xv. grs. of Dover's powder immediately, with orders to have the same dose repeated at bed-time. On my visit the next day, I found she had slept well, the diarrhoea had ceased, and she was perfectly free from any and every ache and pain, and asked to be allowed to get out of bed. From this time she went on mending and gaining strength and flesh, till one day having over-exerted herself, the pains returned in the wrists and ankles. These joints were painted over with Tinct. of Iodine, and a full dose of Dover's powder given at bed-time, which quite relieved them, and to show the disposition which existed to rheumatic inflammation in her, I may

mention the same thing happened to her three or four times afterwards, and was always easily relieved by the same means. After a time, the dropsical effusion which I described in my last paper, suddenly made its appearance; there was not any cardiac affection discoverable, nor any structural cause for this symptom, and as then stated, was soon cured by external diuretics. This case is interesting from the great length of time she had suffered from so acute an attack of the disease, before she came under treatment, from there not having been any cardiac affection throughout its whole course, and yet some time after the rheumatic affection had ceased, and she had so far recovered as to begin to talk about returning home, that dropsy should supervene.

The 2nd case is that of Ann Flynn, aged 38, a married woman, admitted into the medical wards of St. Patrick's Hospital, on the — of June. She had been suffering for four days from intense pain and swelling of the wrists and elbows, ankles and knees, and had tried several remedies of her own accord without deriving any benefit from them. These joints were all swollen, and she was unable to move her limbs from the pain. She had not slept from the commencement of the attack. She was immediately put upon ℥viii of lime juice three times a-day. On my visit next day, I found her much the same as on her admission, only saying she did not think the pains altogether as piercing as the day before, so I ordered the lime juice to be given every three hours in ℥iii doses. She slept this night—her second in Hospital, four hours, and had much less pain; the lime juice was continued in the same doses for the next three days, when she was so much improved that I diminished the dose to ℥ii three times a-day. She was able to be up and to walk about the ward, and on the tenth day left the Hospital quite well. I publish these two cases as both were very severe, and both readily cured by this simple treatment, which has lately been so much extolled, and which, from its action, affords proof of the correctness of the opinion first advanced, I believe, by Dr. Todd, that rheumatic fever, as well as gout, is a disease of the blood, and that all the phenomena of rheumatic fever are referable to the presence of lactic acid, which is too freely developed in the system.

(To be continued.)

ART. LVIII.—*Case of Spontaneous Dislocation of the Lens into the anterior chamber of the Eye, producing cerebral derangement. Cure by extraction.* By HENRY HOWARD, M.R.C.S.L., Ophthalmic and Aural Surgeon, and Clinical Lecturer to St. Patrick's Hospital, and Surgeon to the Montreal Eye and Ear Institution.

Mary M., aged 34, servant, unmarried, admitted into the ophthalmic ward of St. Patrick's Hospital, November, 20, 1852. Stated, that since about the first of May, she had been suffering severe pain and inflammation in her left eye, which pain had, for about the last three months, attacked her head, at periods so severe as to deprive her of her senses, and render her life miserable. For a long time, she has had no wish for food, and has had constant attacks of vomiting for the last three weeks. Sight had long since disappeared from the diseased eye, certain that her eye never received any injury, and that it was never inflamed before the present attack. She had taken much medicine at different periods since the month of May.

When she presented herself at St. Patrick's Hospital, her appearance was that of a poor, miserable, emaciated creature, worn out by disease and suffering; she was not able to walk without assistance, and was vomiting every few minutes. Her pulse was small and rapid, varying from 95 to 100, tongue fured. On examining her left eye, I found the whole eye-ball was inflamed, and the lens, with a small quantity of lymph, lying in the anterior chamber. Believing that the cause of all her sufferings was the pressure produced by the dislocated lens, I determined to remove it at once by extraction, and without delay made a section of the lower half of the cornea which evacuated the hypopium at the same time that it enabled me to remove the lens with but very little trouble. The after treatment was the same as that adopted after extracting an ordinary cataract; on the twelfth day, the wound of the cornea was perfectly healed, and all the inflammation subdued; up to that time, all the medicine she took, since her admission into Hospital, was a few alterative doses of calomel and mild aperients. From the moment of the operation, there had been no more vomiting the head symptoms gradually subsiding and completely ceased after forty eight hours. The eye has now the same appearance as the sound eye, and for the last week, sight is gradually returning, an occurrence that I never expected when I first examined her. The remarkable points in this case are: First, all the cerebral symptoms produced by dislocation of the lens into the anterior chamber of the eye, are such as would be found from tumour in the orbit causing distension of that cavity, or what would arise from malignant disease of the eye-ball. Secondly, the lens being spontaneously dislocated as the result of long continued

inflammation, which inflammation must, as a matter of course, produce destruction of the capsule of the lens, is a strange result of inflammation of that part. From the patient's own account, I concluded that the lens was not dislocated from the commencement of the attack, but for the last three months, which was the length of time she had been suffering from severe head symptoms, and lost her sight.

There is no cause in the world to doubt the woman's word, that she never received any injury of the eye, as she bears a most respectable character.

Montreal, St. François Xavier Street,
December 20, 1852.

ART. LIX.—*Hereditary Insanity, characterized by periodical attacks. Sudden death, and Coroner's Inquest.* By GEORGE D. GIBB, M. D., L.R.C.S.I., Lecturer on the Institutes of Medicine, St. Lawrence School of Medicine, Montreal; Honorary Fellow of the Medical Society of Virginia, &c.

Maria S ———, a native of London, England, æt about 58, arrived in this country in 1828, and at that time was of sound mind. Her father had been for many years an inmate of a Lunatic Asylum in London, and died at the age of 54.

She had three brothers who also emigrated to this country, all now deceased, and two were subject to occasional paroxysms, which were sometimes so severe as to require bodily restraint, the elder of these two died in August 1849, of serous Apoplexy, the details of whose case were published in the 5th volume of the British American Journal of Medical and Physical Science, and to which I shall have occasion to refer further on.

The younger of these two, died in June, 1831, of Phthisis, æt 37.—Shortly after the arrival of the sister in this country, she astonished and oftentimes alarmed her friends by her strange behaviour, both in manner and speech, so much so at last, that many felt afraid to be alone in her presence. These attacks would come on at particular periods, and were sometimes very violent. When well, however, she seemed different in her behaviour from ordinary people, very eccentric in her conversation and manner of dress. Her elder brother was in comparative affluence on her arrival, and afterwards was in a state of utter poverty, both brother and sister, having to put up with the severest privations. They suffered at times from cold and hunger, and were thus peculiarly exposed to the influence of disease. Four years ago they were taken

care of by a friend, who fed, clothed, and lodged them in her own house, and to whom I am indebted for most of these particulars. The sister during the whole of this time, was subject to a mild attack of insanity every three weeks, which consisted of swearing, incoherent talking, slapping and beating herself about the arms, using threats, &c. She appeared very wild, breathless and excited, her eyes staring, and during the lifetime of her brother, the violence of these attacks were frequently vented upon him. These attacks generally occurred in the night, and were more violent than in the day time. Her appetite was at all times voracious. She had some slight attacks of illness three years ago, and when ill she would crawl under the bed, and there remain until pulled from beneath. She would sometimes converse in a rational manner, but her memory appeared to be terribly deficient. She often fancied that persons wanted to hurt her, and she sometimes seemed afraid of even a child. After the death of her brother, in 1849, she would frequently exclaim that he had been poisoned, and she has been heard to say she would never take any of the Doctor's medicine for fear of being poisoned.

Her periodical attacks every three weeks, have never exceeded 24 hours in duration ; if commencing in the morning she would refuse her first meal, but never the subsequent meals.

The lady with whom she resided, informed me that Miss S ———, had never seen her menses during four years of her stay with her, and had even been so for many years before the critical period of her life had arrived.

She complained occasionally of headache, but never severely, and has often passed sleepless nights, which were occupied by wakefulness and constant incoherency of speech until the break of day.

A few days before death, she seemed dejected, more silent, her eyes were staring and vacant, was mischievous and annoying in her behaviour ; she however went about the house as usual.

The morning before death, she did not come down stairs, at her usual hour, and when seen, she said she could not get up. She was, however, helped to rise, partially dressed, and went down stairs, she took her ordinary food and ate very heartily, and at night walked up stairs and retired to rest. On the morning succeeding, 4th March, 1851, a little later than the usual hour of rising, she was found dead in her bed, and had apparently ceased to breathe about 15 minutes, the surface of the body being quite warm.

As she had not been attended before death by a professional man, and her death being very sudden, the Coroner, on being informed of the facts, considered it his duty to hold an inquest upon the body. As I

was the Medical witness chosen in this case, I gave my evidence before the Jury touching the immediate cause of death, and afterwards, in my Report forwarded to the Coroner, embodied the following particulars of the Post Mortem examination, made 30 hours after death.

Externally. The body appeared to be most terribly emaciated; the dorsum of both feet were slightly swelled and œdematous, the chest was remarkably narrow, and the features not at all shrunken. Rigor mortis of the knee joints only.

Head. The vessels of the dura mater were turgid with blood. There was a good deal of sub-arachnoid effusion over the superior and external parts of both hemispheres of the brain, and some effusion at its base. The lateral ventricles were filled with serum, and the quantity measured 9 fluid drachms. The substance of the brain was remarkably firm and white, with the usual punctiform vascularity. In the lateral ventricles, the corpora striata were very soft in comparison with the structure of the brain itself, so much so as to lead me to believe it a morbid state. There was a depression on the posterior surface of the right corpus striatum, where the softening was marked.

Chest. There was commencing ossification of the middle costal cartilages. Numerous and firm old pleuritic adhesions were observed throughout almost the entire left side of the chest, requiring unusual force to break them down, so much so at the apex of left lung, as to produce destruction of its substance on removal, this part and posteriorly was in a state of hypostatic congestion. On the right side these old adhesions were not so numerous, and the lung was more easily removed, the same congested state existed posteriorly as on the left. The substance of both lungs was otherwise perfectly healthy.

Adhesions remarkably strong, bound the right and left aspects of the pericardium to the surfaces of the lungs in contact. On opening the pericardium, it contained about 2 ounces of straw-coloured serum. Circular adhesive bands nearly an inch in diameter, existed between the pericardium and anterior surface of the right ventricle of the heart. On the posterior surface of the same ventricle there was a white patch

Abdomen. The strongest adhesions existed between the entire under surface of the diaphragm and all the viscera in contact. The liver was immoveable in consequence, and its left lobe extended across towards the left side ; it was much congested. The spleen was small, and had some white patches on its surface. The kidneys were pale, the right possessing a waxy appearance on its surface ; both were congested, and their capsules were firmly attached. The stomach and intestines appeared healthy, and the bladder was filled with urine. The uterus was that of a virgin, with an absence of the left ovary and fallopian tube.

In my evidence before the jury, I stated as my opinion, that the immediate cause of death, was ossification of the arteries of the heart, and the effusion of serum into the ventricles of the brain.

One of the objects held in view, in publishing this case, is to show the manner in which hereditary insanity may run through a family, and not leave a single member escape ; and another, to compare the post mortem cerebral appearances, in 2 of the members of it, a chance which but rarely offers to the same practitioner.

Where insanity may be present in a family, it is undeniable, that it may show itself under different forms, and may terminate in various ways. We see that here, one brother died of serous apoplexy, another of phthisis, and a sister of spasm of the heart? or, of sudden serous effusion into the ventricles of the brain.

Of 4 children, the offspring of the brother who died of phthisis, 3 died of the same disease, (one in infancy, and two above the ages of puberty,) and one is still alive, but *silly*. The mother of these children is alive and in good health.

In the 5th volume of the *British American Journal of Medical and Physical Science*, to which I refer the reader, are the particulars of the *post-mortem* dissection of the brother of Miss S., from which I shall extract the appearances presented in the brain and heart, and compare them in a tabular form, with those of the sister :—

THE BRAIN.

MISS S.

1. Vessels of dura mater congested.
2. Good deal of sub-arachnoid effusion over the superior and external parts of both hemispheres, and some effusion at its base.
3. Substance of the brain firm and white.
4. Both lateral ventricles filled with serum nine fluid drachms.
5. Depression on posterior surface of right corpus striatum, where the softening was marked.

THE BROTHER.

1. Injection of pia mater and arachnoid, and adhesion between the two at the base.
2. An ounce of bloody serum escaped from the base.
3. Brain rather soft. Crura cerebri *very* soft, as if from inflammation. Ramolissement of septum lucidum and fornix.
4. Both lateral ventricles filled with serum.
5. Corpus striatum, upper surface, right side, a cavity the size of a marble.

One essential difference between the 2 brains, is the firmness of the one, and the softening of the other. The other appearances may be said to possess some resemblance to one another. But, what can be said of the depression in the right corpus striatum of each brain? Can this be a mere coincidence? The fact, however, is a very extraordinary one, and admits of no explanation. In that of the brother, the microscopic appearances, denoted the results of inflammation, such as exudation corpuscles, broken up and scattered nerve tubes and fibres, and granular cells. This was not the case with the sister, at least no exudation corpuscles were visible.

THE HEART AND VESSELS.

MISS S.

Heart small; weight 7 oz. 6 dr.
Ossification of anterior and posterior coronary arteries.

THE BROTHER.

Heart hypertrophied with dilatation; weight between 15 and 16 oz.
Ossification of basilar and other arteries of the brain.
Ditto of coronary arteries.
Aorta contained large and solid bony patches, and atheromatous deposits to the bifurcation of the iliacs.
Semilunar valves of the aorta in a similar condition.

If the autopsy of the brother were alone read, without the previous history of his case being known, an observer might class the phenomena presented as a good illustration of the disease polysarcia or obesity, so well described in the lectures of Dr. Chambers in the first volume of the *Lancet* for 1850. The heart and great vessels particularly possessed the peculiarities so often observed in the autopsys of fat people. The heart, which has been preserved in spirits, now upwards of 3 years, has eliminated a very large amount of fat, which floats on the surface of the fluid like a quantity of oil, and has rendered the colour of the spirits almost a brown. The state of this organ, shown in the table above, is reversed in each; and although the coronary arteries were diseased in each, this distinction may be made, that in the sister the degeneration was truly ossific, whilst in the brother, it was atheromatous.

No conclusions of any importance can be drawn from the comparison just made, in the *appearances* presented by the brain, heart, &c. But they prove highly interesting, as occurring in two individuals so intimately connected by blood, and who were hereditarily insane.

Regarding the sister, the periodicity of her attacks may have been due to the irregularity of the menses, produced partly by the congenital deficiency of the left ovary and fallopian tube, or, it may have been due solely as the result of the disease itself. She was possessed of a large

nose, and the olfactory bulbs were absolutely the size of the end of the little finger, the nerves themselves being of the natural size.

From the foregoing details, the following questions arise for solution:—

1. Whether the termination in each case, was in any way identical?
2. Whether there is any bearing in the relation of phthisis to insanity?
3. What form of insanity, the present case may be classed under?
4. Whether the pathological changes in the *structure* of the brain here or elsewhere, were the causes (or results) of insanity? Dr. Burnett considers the *blood* the seat of the disease.

Of these I shall only answer the 3rd. In the Report of the Metropolitan Commissioners in Lunacy, the various *forms* of mental disease are ably distinguished into 9 different disorders.* Of these, the first, *Mania*, is divided into—

- a. Acute mania, or raving madness.
- b. Ordinary mania, or chronic madness of a less acute form.
- c. Periodical or remittent mania, with comparatively lucid intervals.

It is under this third subdivision of mania, the intermittent mania, that I shall class the case, the subject of this paper. The existence of this variety has been much disputed, some medical writers of note denying the existence of lucid intervals altogether. "As the Commissioners justly observe, the fact appears to be, that there are patients subject to occasional paroxysms of raving madness, but who have intervals of comparative tranquillity and rest. It generally happens, however, that after the alternations of raving fits and periods of tranquillity have continued for some time, the intervals become less clearly marked, and the mind is found to be weakened, the temper more irritable, and both the feelings and the intellectual faculties more and more disordered."

With Miss S——, the intermittent form was continued to the end of her life, although it is probable that this might have become changed again in its character, had she survived some years longer.

n's Report on the recent pro-

ART. LX.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM, DE SOLA, Lecturer on Hebrew Language and Literature in the University M'Gill College, &c.

(Continued from page 599.)

The very important caution which Abarbanel cites as to subjecting any of the precepts of holy writ to a presumptuous system of ratiocination, he most certainly does not mean to apply to any inquiries into the nature of the animals permitted or prohibited, since we have seen, and shall yet further see that he himself enters deeply and ably into this subject; and, moreover, particularises the *how* and *where* such an investigation becomes improper or reprehensible. In proceeding, then, to examine presently, the directions of the Levitical law with reference to the birds, we shall dwell for some time upon the analogy existing between the clean birds and the clean quadrupeds, which we think well worthy of notice, and intimately connected with our subject. At present we have to inquire what the other eminent Jewish authority, already quoted, teaches with respect to the permitted and forbidden fishes. Maimonides devotes one paragraph (the twenty-fourth) of the chapter from which we have before translated, to a notice of the distinctive signs of fishes; it is as follows:—"Two signs distinguish the clean fishes, fins*

* It may be necessary here to continue our examination of the text. We notice first, מַיִם *Mayim* and יָמִים *Yamim*, the waters, "from the root יָם *yam*, tumult, as a N. masc, plur; (it has a dual termination,) thus denominated from their being so susceptible of, and frequently agitated by, tumultuous motions," Parkhurst. Wessely in his comment on the 11th chap. of Leviticus, says "the word *mayim* applies to all waters, those of seas, rivers, ponds, and of pits, caves, &c., and even that which are contained in utensils of any sort; for fish can multiply in all, therefore is the word *mayim* used here indefinitely, so as to imply all fish that breed in the water. *Yamim* means the oceans, as it is said "the gathering together of the waters God called *yamim*." * * * *Nechalim* means those streams (rivers) which are the products of the rains and springs alluded to in Ecclesiastes-i. Ps. 104.

סנפיר *Senaphir* means, according to all, *fin*, and is therefore correctly rendered in the Ang. version and by the Spanish translators as *ala*, by the German, *flossfedern*, *cauda pinna piscis*. Targ. *tsits*. The LXX. have *Pterugia*, wings, probably from the resemblance maintained between it and the wing of a fowl.

קַסְקֶסֶת *kaskeset* scales; *escama*, "literally, a little piece, so called from its rigidity,"—Park. *Kasskesset* means the skinny portion fixed to the fish, as in 1 Sam. xvii. "with a coat of mail (*shiryon kasskassim*) he was clad," so writes Rashi, but Nachmanides remarks that these scales cannot be said properly to be fixed to the fishes' skin, but are round integuments which can be removed with the hand or knife, wherefore it is said in the Talmud that *kasskesset* is a dress, * * for as a dress is quickly put off, so may these scales be easily removed with the hand; but this is not so with those which cleave to the skin, [and which circumstance establishes such fishes to be unclean].

and scales; the former enable them to swim, and the latter cleave all over their bodies. All possessing fins, possess scales. If they do not possess these in the first instance,* but they afterwards grow with them, or if they have scales whilst in the water, but when drawn forth, they leave them in the water, they are permitted. Those which have not scales covering the whole of their bodies are permitted; indeed, though they had only one fin and one scale, they are permitted." To these remarks it may, perhaps, be added as worthy of note, that fish with fins being only permitted, there is, so to speak, a connecting analogy herein exhibited between these and the just mentioned superior animals (quadrupeds) which those fishes not possessing fins, most certainly do not exhibit; and whereby, it is perhaps not unreasonable to suppose an inferiority in these finless and scaleless fishes, in respect to their approaching to aquatic or marine reptiles, is implied by the sacred penman. This opinion may be considered as deriving some support from the circumstance that naturalists have uniformly remarked upon the analogy existing between the organs of locomotion of fishes, and those of quadrupeds; thus, the fins of the former, called the *pectoral* or thoracic, from their situation, have been considered as correspondent with the fore feet of the latter; and those placed farther back called *ventral* or abdominal fins, have been conceived to represent the hind feet of the first class of vertebrated animals. The vertical fins on the back are termed *dorsal* fins, and those on the under surface of the body *anal* fins; the fin by which the tail is terminated being termed the *caudal* fin. The membranes of these fins are supported by rays or bands more or less numerous, and those of the pectoral and ventral fins, according to the represented analogy between the organs of fishes and quadrupeds, have been supposed.

שקקט *skekets* an abomination, particularly what is ceremonially unclean; specially applied to reptiles.

שרץ *sherets* a reptile, worm; *שרץ חגוף* *sherets hangoff* winged reptile, lesser fishes. "The Paraphrast must have concluded this word to mean, particularly, movement, for he translates it. *נחלץ*"—Kimchi. Abarbanel says it is compounded of *asher* which, and *rots* runneth. "*Reptile, omne animal quod supra terram non eminet, terrestre aut aquaticum ut sunt ranæ, locustæ formicæ, crabrones, vermes et pisces*, Gen. 20." "The moving things, or as the Greek translateth *creeping things*. But the Hebrew *sherets* is more large than that which we call the creeping thing, for it containeth things moving swiftly in the waters as *swimming fishes*, and the earth, as running *weazels, mice, &c.* R. Salomon on Exod i., saith that they did bring forth six at one birth. [Rashi says this because of the extraordinarily rapid increase of the Israelites in Egypt, the word in the text being *wayishretsū*], and Aben Ezra, that the women brought forth twins and more." Critic, Sacra.

* The Yoreh Deah explains (ch. 83, §1, *comment*) that if the scales cannot be removed readily with the hand or any other instrument, they are not to be accounted as such, and the fishes are to be pronounced, in consequence, unclean.

to represent the toes of the feet. From hence, also, is apparent the expressiveness and propriety of the Hebrew term for *fin* which is סנפיר a pluriliteral, compounded of סנ (Seneh) *a thorn*, and פר (Par) *to break*, and of Parkhurst's remark that "the frame or texture thereof gives the reason of the Hebrew name," since the fin of a fish consists of rays, or according to the Hebrew phrase, of *thorns i. e.*, little bones or cartilaginous ossicles supporting a membrane *broken* or divided into several partitions. Those who would see the analogy ably carried out would do well to refer to Professor Stark's valuable "Natural History," (Ed. Edinb., 1828, v. 1., p. 377,) from which we cannot refrain transcribing his following brief, but flattering, panegyric of our learned co-religionist Bloch. "Among those who contributed to that progress, (of Ichthyology or study of fishes) by accurate representations of the animals, Mark Eleazar Bloch, a Jewish physician at Berlin, deserves to be noticed. His *Ichthyologie ou Histoire Naturelle des Poissons*, in six volumes folio, was published in 1785-95, with 452 colored plates, the greater part of which are accurately drawn and described from nature; and the facts connected with the history, specific differences, and uses of fishes detailed with equal accuracy, have furnished most subsequent writers with a storehouse of information on the subject of the European species. The original edition being difficult to be procured, a small copy in ten volumes, 18 mo, was published at Paris in 1801."

The distinctive signs of *birds* are not supplied us by the Scriptures, though they are by ancient Jewish tradition. In the Talmud, Treat. Cholin (Mish. ch. 3, § 6) we learn "that every [predaceous] bird which strikes its talons into its prey* is unclean: every bird which has an additional claw,† a crop, and of which the internal coat of the stomach may be peeled off [with the hand] is of the clean species. Every bird which [when placed on a perch] divides its toes equally, is an unclean one." Abarbanel when pointing out the means of compensation exhibited in the cases of the wild and domestic quadrupeds, which we have already quoted, thus continues his remarks which have refer-

* דרסו *Deress*, according to some, such as do not wait for the death of their victim but eat it alive, and although the common fowl eats worms and reptiles while they yet have life, yet could not the Hebrew term *derisah* be properly applied to this.

† Placed behind and above the front ones; the toes are usually in number four, and never more numerous, sometimes of the external or internal finger one or both disappear, so that only three, as in the case of the Bustard or even two, as in the Ostrich remain. Three of the four toes are generally directed in front, while the fourth is turned backwards. In the family *Phasianide* or Pheasant tribe, the hind toe is placed higher on the tarsus than the front ones, so that only the tip touches the ground, and the tarsus of the male is generally furnished with one or more spurs; so in the common fowl.

ence to birds. "There are some of the predaceous birds having sharp claws, [talons] but not having an additional claw above their foot, whereas the feet of clean birds are extended according to the requirement of their manner of walking to gather their food in the fields. They have, in consequence, an additional toe above their foot, that their progress may be not impeded, just like those beasts which have their hoofs fully divided [are distinguished from the beasts of prey]. The clean birds have also a crop [פֶּרֶז זֶפֶהֶק] and a stomach, the internal coat of which may be peeled off [with the hand] for the re-grinding of their food. In this [preparing their food in the crop and gizzard] they are like unto those which ruminate among beasts, [who also require more than one stomach for the maceration of their food]. The *ngoreb* [raven] is [an exception to the rule among birds] as the swine [is among beasts] having only one of the necessary conditions, viz: an additional claw, and not being properly a predaceous bird, but it does not conform to the rule with reference to its digestive apparatus and the peeling of the stomach above mentioned. There are also of the unclean birds [presenting this contradictoriness] like the camel, *shafan* and *arnabet* [among beasts,] since if they exhibit one of the signs of the clean birds, they do not possess the other; hence the rule 'every predaceous bird is unclean.' Their nature is fierce and intractable, their temperament bad, being nourished by such food only as they hastily tear and swallow, and therefore are they prohibited."

The learned Abarbanel, whose elegant and valuable commentary we continue to select as the able expositor of Jewish tradition affecting the points we are discussing, in the just completed extract, continues to show the remarkably correct acquaintance which the ancient Hebrews had with natural history, more than twice ten centuries since. The admirable adaptation of the feet to the nature and wants of each of the two classes of birds, is, evidently, insisted upon by our author with singular propriety. The reader will please compare his remarks with those in the note on p. 656. He states that an identity exists in the ruminating and digestive apparatus of the clean beasts and the clean birds. For that general reader who may not have paid special attention to the fact, we venture to exhibit the following comparison. The œsophagus in birds beginning at the inferior part of the neck communicates with the first digestive cavity named the *crop*. This first stomach corresponds to the first and second in the *Ruminantia*, viz: the *paunch* and *honeycomb*, (we have shown that for good reasons these receive only one name in Hebrew, and are in more than one respect, identical, even if the second be not a mere appendage of the third stomach, as some have thought). The food remains for a time in this crop.

Below it, the œsophagus is again contracted, and presents further down a second dilatation, called the *ventriculus succenturiatus*, whose internal surface is perforated by a considerable number of small pores. This again corresponds with the *many plies* of the ruminating beasts, and opens below into the *gizzard*, in which the process of chymification is completed. This corresponds with the *reed* of ruminant beasts, and in birds that feed on flesh only, its sides are thin and membranous, but in those that swallow food which is harder and more difficult to digest, it is furnished with strong muscles intended to compress and to grind down its contents. Its inner surface is covered with a sort of almost cartilaginous epithelium. Our commentator refers to certain exceptions to the rule, but to these remarks, pertinent and correct as they are, it will be proper to refer, when considering the nomenclature of the animals. The following observations of Dr. Carpenter in his interesting work on Zoology, will, however, be in itself confirmation sufficiently strong of Abarbanel remarks. "It is impossible not to recognise the obvious analogies between the different groups of Carnivorous Mammalia, and those of the predaceous birds. The bold and powerful eagles obviously resemble the lion and other large felines; the smaller and yet more sanguinary falcons correspond with the smaller felines and with the mustelidæ; the cowardly carrion-feeding vultures resemble the hyæna and wild dog; whilst the owls may be likened to nocturnal viverridæ; we shall find that there are certain species aquatic in their habits, and which are parallel, therefore, to the otters and seals."* Abarbanel thus continues his comment, "Fishes are mentioned by the sacred penman after beasts, because like the latter, they have assigned them two distinctive signs of legality, but which birds have not; those to which I have already alluded, being, according to the tradition of our pious sages, upon whom be peace. These signs of the clean birds are, moreover,

* We are forcibly reminded here of Dr. Paley's remarks in his chapter on compensation. "It has been proved by the most correct experiments that the gastric juice of these birds (granivorous and herbivorous) will not operate upon the entire grain, not even when softened by water or macerated in the crop. Therefore without a grinding machine within its body, without the trituration of the gizzard, a chicken would have starved upon a heap of corn, yet, why should a bill and a gizzard go together? Why should a gizzard never be found where there are teeth? Nor does the gizzard belong to birds as such. A gizzard is not found in birds of prey. Their food requires not to be ground down in a mill. The compensatory contrivance goes no farther than the necessity. In both classes of birds, however, the digestive organ within the body bear a strict and mechanical relation to the external instruments for procuring food. The soft membranous stomach accompanies a hooked, notched beak: short muscular legs; strong, sharp crooked talons; the cartilaginous stomach attends that conformation of the bill and feet, which enables the bird to the picking of seeds or the crushing of insects." &c.

internal, whereas [to correspond with the cases of beasts and fishes], they should be external, so as immediately to be recognized. The law therefore does not refer to these signs, but mentions the unclean species of birds, the clean being the most numerous. Those birds which are not specified in the text as prohibited, rank under the category of the permitted. In Dueteronomy, Moses, we find, particularises the clean beasts permitted for food, while of fowl he says, 'all clean fowl ye may eat,' in general terms."

The following is the Jewish law of discrimination for birds according to Maimonides in the 1st chapter of his Treatise on Forbidden Meats already referred to. "§ 14. The signs of the clean birds are not explained in the law; but it lays down the number of unclean birds, and all others are permitted. The prohibited are twenty-four in number, and may thus be enumerated. 1. נֶשֶׁךְ [nesher, generally translated as in the Anglican version, eagle]. 2. פֶּרֶס [peres, ossifrage]. 3. עֹנִיָּה [ngos-niyah, ospray]. 4. דָּאָה [daah, vulture], which is identical with the רָאָה [raah, Ang. vers. glede] of Deuteronomy. 5. אֵיָּה [ayah, kite] identical with the דַּיָּה [dayah Ang. vers. vulture] of Deuteronomy. 6. A species or order of the *ayah*; for it is written in the text 'its kind,' also, from which is established that there are two kinds. 7. עֹרֵב [ngoreb, raven]. 8. זָרְזִיר [zarzir, generally understood as a stare or starling Baba, Kama fol. xcii. 2] for it is said, 'the raven after its kind,' to include hereby the zarzir. 9. יְעָנָה (בַּת) [yanganah, owl]. 10. חֹחַמַס [tachmass, nighthawk]. 11. שַׁחַף [shachaf, cuckow]. 12. נֶץ [nets, hawk]. 13. שְׂרָנְקָא [sharneka,] a species of hawk, as the text shows, from its employing the term, 'after its kind,' to the hawk. 14. כּוֹס [kos, little owl]. 15. שָׁלַךְ [shalach, cormorant]. 16. יָנְשׁוּף [yanshuff, great owl]. 17. תִּנְשֵׁמֶת [tinshemet, swan]. 18. קָאָה [kaat, pelican]. 19. רַחֲמָה [rachama, gier-eagle]. 20. חֲסִידָה (chasidah, stork). 21. אֲנָפָה [anafah, heron]. 22. A species of the *anafah* as stated in the text. 23. דּוּכִיפָּה [doochifat, lapwing]. 24. עֲטָלָה [ngatalef, bat). § 15. Every one who is well acquainted with these various species and their nomenclature, may eat of every bird not included in this list, and without examination. Clean birds are eaten on the strength of tradition, it being of course a well established thing in the place where the bird is eaten, that such is a clean bird, and one experienced in hunting [and the names] of these birds gives his testimony to their being clean. § 16. He who cannot readily distinguish them, but is intimately acquainted with their nomenclature can examine them by these signs with which our sages have supplied us; to wit, every bird that strikes its talons in its prey and then eats it, such, it is clear, is of the enumerated species, and is unclean; if it does not this, however, it is yet clean, provided it possess one of these

three signs, an additional toe or claw, or it possess a crop, or that the internal coat of the stomach can be peeled off with the hand. § 17. There is not among all these prohibited species any one that is not predaceous, and having one of these three signs, except the *peres* and *ngosniyah*, and the *peres* and *ngosniyah* are not found in inhabited places, but in deserts and very distant places, and at the utmost verge of civilization. § 18. If the skin of the stomach is removeable with a knife but not with the hand, and the bird [in such a case] has no other sign [of being unclean, although it may not strike its claws in its prey], yet is it a doubtful case. If the stomach be tough, and [the skin] cleave closely to it, but before being exposed to the sun, it becomes soft and easily peeled by the hand, then it is permitted. § 19. The Gaonim, [eminent Rabbis who flourished just after the completion of the Talmud] have declared that they have been traditionally cautioned against teaching the legality of a bird possessing only one sign of its being clean, unless that one sign were that the skin of its stomach was readily peeled with the hand; but if this one sign obtain not, although the bird possess a crop or an additional claw, yet can they never permit it to be considered as clean. § 20. Every bird which divides [equally] its paws when placed on a perch, two one way, and two another; or that he seizes [his food] in the air and there eats it, is undoubtedly of the predaceous kind and unclean; and all which associate with the unclean, and approximate to them [in nature and habits] are unclean." To this the *Yoreh Deah* adds, (ch. 82, § 3), "Some assert that every fowl with broad beak and expanded, [palmated or webbed] feet like those of the goose, is well known to be non-predaceous, and is lawful food, provided it have the three signs. § 4. A person who happens to be from a place where they are accustomed to account as prohibited a certain fowl because they have no tradition, that it is clean, and he goes to a place where they have a tradition that it is of the clean species, he may eat thereof in that place, even if his intention be to return to the other place; and if he went from a place where they pronounce it to be traditionally clean, and go to another place where they have no such tradition, he can yet eat thereof. § 5. Places having no tradition respecting the character of the birds, depend upon those which have, to eat thereof. Some prohibit and some allow, but it is preferable to abide by the decision of those who prohibit." Thus particular are the directions of the Jewish canon, respecting the means of discriminating the clean and unclean birds.

With respect to *reptiles* and *insects*, the law thus directs, "V. 20. All fowls that creep, going upon all four, shall be an abomination unto you. V. 21. Yet these may ye eat, of every flying, creeping thing, that

goeth upon *all* four, which have legs above their feet, to leap withal upon the earth. V. 22. *Even* these of them ye may eat, the locust after his kind, &c. V. 23. But all other flying, creeping things, which have four feet *shall be* an abomination unto you. V. 27. And whatsoever goeth upon his paws, [kapav] among all manner of beasts, that go on *all* four, these *are* unclean unto you; whosoever toucheth their carcase, shall be unclean until the even. V. 29. These also shall be unclean unto you, among the creeping things that creep upon the earth, the weasel, &c. V. 42. Whatsoever goeth upon the belly, and whatsoever goeth upon *all* four, or whatsoever hath more feet among all creeping things that creep upon the earth, them ye shall not eat for they are an abomination. V. 43. Ye shall not make yourselves abominable with any creeping thing, that creepeth, neither shall ye make yourselves unclean with them, that ye should be defiled thereby." We cite Don Isaac Abarbanel's comment upon this; he writes—"In addition to its first stated instructions respecting birds, the text adds: 'all fowls that creep going upon *all* four, shall be an abomination unto you,' because there are creatures which now creep the earth like reptiles, and anon fly in the air. All such, the text pronounces an abomination; except the mentioned four kinds of locusts [chagabim] which are permitted.—These go on *all* four, and have legs above their feet,—feet higher than the ordinary ones which they require to leap withal upon the earth; when they desire to jump, they effect it by these feet, raising their wings, which cover the greater portion of their body. The distinguishing signs of these locusts (chagabim) are, that they possess [extra] legs for jumping [pedes saltatoria] four feet and four wings, which cover the greater part of the body, and with a long head—to such is the term *chagab* properly applied. It becomes us to ask here, why is it said 'and *ALL* fowls that go on *all* four, &c.'? because, the text gives a general rule with respect to all such, and would add, 'these species which I mention, ye may eat, and they do not come within the category of reptiles;' and so after specifying these, it adds, 'all the rest which go on *all* four, shall be an abomination unto you, and shall not by any means be accounted among those of which I have said, even these of them ye may eat'. After mentioning the creatures which may legally be eaten, and those also which are unclean and are to be abominated, the text informs us of those which render unclean all who *touch* them. When it says therefore, 'for these ye shall be unclean' (v. 24) it means for these which will now be mentioned; again the text saith, 'and whatsoever goeth upon his paws, and every beast that goeth upon *all* four,' and not on his *hoofs*, like the dog, bear, and cat, &c. * * * It would seem that the caution [repeated in the 41st verse] that every 'creeping thing, is an

abomination and must not be eaten,' is unnecessary, since it is already given, in a former part of the chapter, but its intent is to show that every reptile besides the eight mentioned above, are unclean and must not be eaten."

Rashi says, "all fowl that creep," [sherets hangoff, v. 20] alludes to those of the smaller and lower order of animals moving upon the earth, such as flies, gnats, locusts, &c. After giving the old Jewish traditional signs of those animals, which may be considered as *chagabim*, and which are quite identical with those given by modern naturalists to the *saltatoria*, Rashi adds "all these signs are to be found in those which come among us, but there are some having an extended head, but not possessing a tail, and yet belong to the species *chagab* [saltatoria] but thus, are we unable to discriminate correctly concerning them. In the 41st verse, there occurs the repetition, [to which Abarbanel also refers] because it implies as exceptions to the prohibition, such insects as are found in *kalisin*, [according to some a species of cedar-fruit or fig; according to others, pulse, Ter. fol. lix. Chol. fol. xvii. 2,] and the maggots in lentiles, which only when creeping upon the ground are prohibited. The expression 'whatsoever goeth upon the belly,' in verse 42, refers to the serpent.—The reduplication of the words 'that goeth, &c.,' in the same verse, shows that the *shilshulin* are to be here included. [This remark of Rashi, it should be observed, is like all we have quoted above as his comment, nothing more than national, traditionary teachings which we may find in the Talmud, chiefly in the treatise Cholin. This last of his remarks, is from this treatise.* R. Benj. Musaphia, in the M. Hearuch, show us that *shilshulin*, means a kind of worm.] "Going upon all four" adds Rashi, "refers here to the scorpion, and the repetition of the word 'all,' shows that the *cheepusheet* [black-beetle, Chol. fol. 67] called in French *escarbot*, is included, 'what hath more feet' alludes to the *nadal* [a reptile having many feet, Chol. fol. lxxv., and Erub. fol. viii. 2, according to Mendelssohn, it is identical with the *Iulus* of Linnæus, of which more presently] and the word *sherets* again repeated here, we know to allude to a reptile which have feet [in equal succession] from head to tail, and, which is called *centpied* [centipede.]" Such is the explication of Rashi. In the Beraytah of Torath Cohanim, a very ancient commentary on Leviticus, it is explained, that the first "whatsoever goeth," in verse 27, refers to the monkey tribe, and its reduplication includes the *kofed* (bittern,) *choled* (weasels of the bushes,) and the *adnay hasadeh* [as some understand, wild men; others baboons, &c.] and the *keleb hayham*, sea dog, &c., all of which are subjects for after remark.

בסוף גמרה דפוק אלו מרפות בזולין חנו רבנן תולד על נחש זה נחש כל לרבות את השלשול האת.
והזמנה לשלשול.

Maimonides after numerating the eight species of *chagabim* or locusts, proceeds to give the traditional signs, which establish them as such. § 22. He who is well acquainted with these and their names may eat of them, but he who is not, examines the three distinguishing signs, which they possess. All which have four legs and four wings, extending the greater part of the length and breadth of their body, and having moreover, two springing legs, is of the clean species; although its head might be long, and it had a tail, it is clean, so long as it is known to be of the species *chagab*. § 23. Such as have not yet wings or springing feet, or wings covering the greater part of their body, but [it is shown] that they will obtain them hereafter when they are grown, then, even at such early state, they are permitted."

We have now shown the reader, perhaps at greater length than his patience might require,—but not more so, than was deemed necessary for a proper appreciation of the subject, what are the rules for discriminating the clean and unclean of beasts, fishes, birds and reptiles, deemed authoritative by the Hebrew people; and it becomes us now to pay some attention to the second point we have to discuss; to wit,—the nomenclature and nature of the enumerated animals. For such of our readers, who may be interested in the subject, we shall take the pains to exhibit a large number of the very highest authorities, both ancient and modern, Jewish and Christian, because, necessarily a more correct opinion is thereby to be formed, and because they will establish one very important fact, with reference to the birds especially, which we cannot pass over.

Our examination commences with the quadrupeds. 1. גמל (*gamal*) camel* T. O. גמל (Gamala,) "he cheweth the cud but divideth not the hoof." v. 4. S. J. T. and de R. camello, G. T. Kameel, M. id. B. camelus, D. L. and G. camel, F. camelus, K. id. O. S. id., M. A. id. "The root denotes retribution or return. As a N. a camel from the revengeful temper of that animal, which Bochart shows to be so

*In the examination about to be made, the rendering of the English version will immediately follow the Hebrew name, while other authorities, for the sake of brevity will be expressed by the following initial letters. S. J. T. will mean Spanish Jewish Translators, de R. de Reyna, G. T. German (Christian) Translators, M. Mendelsohn, B. Buxtorf, F. Furst, D. L. David Levy, P. Parkhurst, K. Kimchi, R. Rashi, Ab. Ez. Aben Ezra, W. Wessely, S. Serrano, C. S. Criticism, Carpenter; and so with other authorities

names by which he translates the text, are, as decided, only applied because of their characteristics and qualities of the animals as is remarked by Wessely before giving a familiar and cannot be assured of their names, of whom were also in doubt on the matter, sided thing; but it was necessary to translate

remarkable as even to become a proverb among those nations who are best acquainted with its nature. Among other passages from ancient writers, he cites from Basil. 'But what marine animal can emulate the camel's resentment of injuries, and his steady and unrelenting anger?' The reader will be well entertained by consulting the excellent and learned Bochart himself on this animal, v. ii. &c."—P. "It is not the case with the camel that his foot is covered with a shoe-like hoof, and so with the *shafan* and *arnebet*, and therefore the text cannot and does not add the words 'and is cloven footed;' but in the case of the swine who does possess such cloven foot the words are used,"* Compare v. 7.—W. "The camel's foot is divided into two distinctly marked toes, although not positively cloven, which are fastened to, and rest upon, the elastic pad or cushion at the end of the foot. From this circumstance, it has been a nicely balanced question whether the camel, which chews the cud, can be reckoned among the species called cloven-footed. It seems to be a connecting link between those that are and those that are not."—Pict. Illus. Bib. A peculiarity of stomach is also noticed by Buffon. "Independent of the four stomachs which are commonly found in ruminating animals, the camel is possessed of a fifth bag which serves him as a reservoir to retain the water. The fifth stomach is peculiar to the camel, &c." "Water is constantly retained from the great masses of cells which cover the sides of their paunch, the other ruminants have nothing of the kind—Cuv. Order vi. Bisulca (Pecora Lin) Gen. xxix.—Stewart. It is without horns and of the order Ruminantia."—Stark, &c. R. Ab. Ez. and Ab—the same. Where such unanimity of opinion exists we cannot but see the correctness of the Aglican version..

2. שָׁפָן (*shafan*) coney, "he cheweth the cud but divideth not the hoof;" T. O. טַבְּזָא (*tapza*); S. J. T. & de R., conejo, which also means rabbit. G. T. & M. Kaninchen; B. cuniculus, mus montanus; D. L. & G. coney; F. mus jaculus Linn. Sept. Choirugrullios. K. id. C. S. id. "The dry, hot nature of the Shafan is well known," Ab. "It is accustomed to resort to concealment in rocks, as it is said, 'the Shefanim are but a feeble folk, yet they make their houses in the rock.' Again in Ps. 104, 18. The word 'divideth' is in the Hiphil form, participle when applied to the camel, in the future tense to the coney, and to the hare in the preterite, which may be meant to teach this. Do not think that those born without dividing the hoof will hereafter do so, for the text couples the 'not' with the future tense; or that it may have had a divided hoof which is now not distinguishable, for the text joins another 'not' with the past tense." "The meaning of the root Shafan is to cover in, conceal. As a noun Shafan means a kind of unclean animal, so called from hiding itself in holes or clefts of

* R. Wessely, from whose Hebrew comment this is an extract, next condemns the learned Rashi for his translation of *Parsah*. We do not think that it is at all necessary to prolong such an inquiry, having already fairly given Wessely's reasons for dissent. For our part we do not think the great Rashi's remarkable acuteness and research has at all failed him. He can in this matter be very easily defended, and were this the place, even we would make an humble attempt so to do. We respect Wessely as a classical Hebrew scholar and able grammarian, but we cannot help feeling that in common with but too many modern Jewish critics, especially with his countrymen—while they display much ingenuity—they are but too apt to forget that if different premises are set up, in criticising some of the old *Mefarashim* very different conclusions will be arrived at. We repeat that the translation of Rashi, we think, every way correct and every way defensible by a mere tyro. But nothing is more probable than that an expression should be differently understood by different parties.

rocks. Ps. civ. 18, Prov. xxx. 26. In the second edition of this work, I followed Bochart's interpretation of *Shafan* by the Jerboa, i. e. the *Mus Jaculus* or jumping Mouse; but I am now inclined to embrace Dr. Shaw's opinion, that it signifies the *Daman Israel*, or Israel's Lamb, 'an animal, says he (Travels, p. 348), of Mount Libanus, though common in other parts of this country [namely Syria and Palestine]. It is a harmless creature, of the same size and quality as the rabbit, and with the like, incurvating posture, and disposition of the fore-teeth. But it is of a browner colour, with smaller eyes, and a head more pointed, like the marmot's. As its usual residence and refuge is in the holes and clefts of the rocks, we have so far a more presumptive proof that this creature may be the Shapan of the Scriptures, than the Jerboa, which latter he says, p. 177, he had never seen burrow among the rocks, but either in a stiff loamy earth, or else in the loose land of the Sahara, especially where it is supported by the spreading roots of spartum, spurge—laurel, or other the like plants. Mr. Bruce likewise opposes the Jerboa's (of which he has given a curious print and a particular description in his Travels, vol. v. p. 121), being the Shafan of the Scriptures, and thus sums up his observations on this subject, p. 127. 'It is the character of the Saphan given in the Scripture, that he is gregarious, that he lives in houses made in the rock, that he is distinguished for his feebleness, which he supplies with his wisdom. (See Prov. xxx. 24, 26, and Ps. civ. 18 in Heb). None of those characteristics agree with the Jerboa: and, therefore, though he chews the cud in common with some others, and was in great plenty in Judea so as to be known to Solomon, yet he cannot be the Saphan of the Scripture. And in a following section Mr. Bruce contends that this is no other than what is called in Arabia and Syria, Israel's Sheep [the Daman Israel of Shaw] and in Amhara, *Ashkoko*, of which animal also he has given a print, p. 139, and a minute description, and thus applies to him, p. 144, the characters just mentioned. 'He is above all other animals so much attached to the rock, that I never once saw him on the ground and from among large stones in the mouth of caves, where is his constant residence: he is gregarious, and lives in families. He is in Judea, Palestine and Arabia, and consequently must have been familiar to Solomon.—Prov. xxx. 24, 26, very obviously fix the Ashkoks to be the Saphan, for the weakness here mentioned seems to allude to his feet, and how inadequate these are to dig holes in the rock, where yet, however, he lodges. These are perfectly round; very pulpy or fleshy, so liable to be excoriated or hurt, and of a soft fleshy substance. Notwithstanding which they build houses in the very hardest rocks, more inaccessible than those of the rabbit, and in which they abide in greater safety, not by exertion of strength, for they have it not, (for they are truly as Solomon says a *feeble folk*), but by their own sagacity and judgment, and therefore are justly described as wise. Lastly, what leaves the thing without doubt is, that some of the Arabs particularly Damir say, that the Saphan had no tail: that it is less than a cat and lives in houses, that is, not houses with men, as there are few of these in the country where the Saphan is: but that he builds houses, or nests of straw, as Solomon has said of him, in contradistinction to the rabbit, and rat, and these other animals that burrow in the ground who cannot be said to build houses, as is expressly said of him.' Thus Mr. Bruce: and for farther satisfaction I refer the reader to his account of the Jerboa, and Ashkoko. I add that Jerome, in his epistle to Sunia and Fretela, cited by Bochart, says the Shefanim are a kind of 'animal not longer than a hedge-hog, resembling a mouse and a bear.' (The latter, I suppose, in the clumsiness of its feet). Whence in Palestine it is called *arktomus* q. d. the *bear-mouse*; and that there is

great abundance of this genus in those countries, and that they are always wont to dwell in the 'caverns of the rocks, and caves of the earth.' This description well agrees with Mr. Bruce's account of the Ashkoko. And as this animal bears a very considerable resemblance to the rabbit, with which Spain anciently abounded, it is not improbable, but the Phenicians might, from Saphan, call that country Saphania. Hence are derived its Greek, Latin and more modern names : and accordingly, on the reverse of a medal of the Emperor Adrian, (given by Scheuchzer, tab. cccxxv.) Spain is represented as a woman sitting on the ground with a rabbit squatting on her robe."—P. "That the shafan cannot be identified with the coney or rabbit is very plain. The rabbit is not an Asiatic animal, and it is very far from being solitious of a rocky habitation, which is the distinguishing characteristic of the *Shafan* mentioned in Prov. xxx. 26. Some, therefore, suppose the Jerboa to be intended. * * The general accuracy of Bruce's account has been attested by more recent observations. It is so much an animal of the rock that Bruce says he never saw one on the ground or from among the large stones at the mouths of the caves, &c., in which it resides. * * They certainly chew the cud as the *Shafan* is said to do in Lev. xi. 5." "They are wise in their choice of habitations peculiarly suited to their condition, and they might be particularly mentioned in this view from the fact that animals of the class to which they belong, are usually inhabitants of the plains. The flesh of the Shaphan was forbidden to the Hebrews : and in like manner the Mahometans and Christians of the East equally abstain from the flesh of the *Daman*." Pict. Illus. Bib. "There is a curious genus of small animals inhabiting the rocky districts of Africa and Syria which is intermediate in its character between the Tapir and Rhinoceros, but presents several points of resemblance to the Rodentia. This is the Daman or Hyrax, an active fur-covered little animal ; something called the Rock-Rabbit, and probably the Cony referred to in the Book of Proverbs. Its skeleton closely resembles that of a Rhinoceros in miniature, and its molar teeth are formed in the same manner : the feet have four toes, which are tipped with hoof-like nails, whilst the hind feet have three ; of which the innermost is furnished with a long claw-like nail. The best brown species are the Cape Hyrax, which inhabits Southern Africa : and the Syrian Hyrax of Syria, Arabia, and Abyssinia. Both these are active, hairy animals, somewhat larger than Rabbits, living in families, and taking up their abode in caves or crevices in the sides of rocks ; they live upon the young shoots of shrubs and upon herbs and grass, and they are playful in their habits, and docile and familiar in captivity." According to the same authority the Jerboa is an intermediate link between the Squirrels and Rats, it is distinguished by the enormous developement of its hind legs and tail, resembling the kangaroo. It is a native of Syria, &c., known to the ancients under the name of *Dipus*. Stewart ranks the Jerboa among the *Digitata*, and says it burrows in the ground. We have, however, made this investigation much longer than proper for the limits we should set down. The result of an extended inquiry, has led us to adopt the opinion that the *shafan* is identical with the *Daman* or *Hyrax*, and although this is now classed by the most respectable naturalists, among the order *Pachydermata*, which as an order of the Mammalia do not ruminate, yet is it to be remembered that the same authorities show us that the ordinary *Pachydermata* (under which the Daman is classed) "approximate the Ruminants in various parts of the skeleton, and even in the complication of the stomach" and "the stomach of the Damans is divided into two sacs; their cœcum is very large, and the colon has several dilatations, and is also furnished with two appendages about the middle analogous to the two cœca of birds," see Cuvier, *Règne Animal*.

(To be continued.)

ART. LXI.—*On Oxygen Gas as an Antidote to the deleterious effects of Anæsthetic Agents*—by S. Abrahams, M. D., of New York.

[The following communication was addressed to a friend who has kindly handed it to us for publication.—Eds.]

An accident which happened last season in this City, (New York) as similar occurrences have often previously done, has brought before the medical profession, a remedy or antidote to the deleterious effects of chloroform, as an anæsthetic, which promises, in point of usefulness, to be second only to that of the discovery of anæsthetic agents themselves.

The case is as follows: a young man attached to the Laboratory of the New York Medical College, became asphyxiated from the inhalation of the vapour of chloroform, and so far had its effects been carried, that he became pulseless and all hopes of his resuscitation, abandoned, and as all the usually recommended remedies had been tried without any success, nothing but the death of the young man was looked for, when I proposed as a *dernier resort*, the application of *pure oxygen gas*, as the only chance by which resuscitation could be brought about; but at the time the proposal met with opposition from the medical men present, who were anxiously watching what seemed to be the expiring efforts of the poor boy, expecting each moment to be his last. Having however consented, the gas had not been more than a few seconds applied to his nostrils, when he who was apparently beyond the help of human aid, and absolutely *in articulo mortis*, arose and placed himself on a chair, proving most conclusively, how correct I was in proposing the application of oxygen gas as a remedy against the deleterious effects of chloroform as an anæsthetic.

I am inclined to believe, that the same agent might be used with advantage in cases of drowning, where the body has been recovered from the water while it is still warm, and I am sanguine of its success where persons are suffering from the inhalation of the fumes of charcoal or from the fixed air (carbonic acid) of pits, mines, &c. I might mention that oxygen gas is almost instantaneously generated from the chlorate of potash, or what is always more readily obtained, nitrate of potash. Either of which placed in a metallic spoon or shovel and held over a gentle heat will evolve the gas most profusely.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Outlines of Chemistry for the use of Students. By WILLIAM GREGORY, M. D., Professor of Chemistry in the University of Edinburgh. First American from the second London Edition. New York, A. S. Barnes, & Co., 1852, p. p. 614. Montreal, Sadlier & Co.

THIS Work has been long a favorite among the Profession, and as a text book, is in great demand with the Medical Student.

It is divided into two parts, generally separate in the English editions, but in the present, united into a single volume. The first part is exclusively devoted to Inorganic Chemistry, and the second to Organic Chemistry. The latter occupies more than one-half of the work, a space proportionate to its importance, and to the share of time allotted to it in the author's lectures.

We find the omission of those subjects classed under the head of Imponderables, namely :—Heat, Light, Electricity, and Magnetism, and the author states as a reason, that for nearly ten years past, he has been in the habit of treating these subjects very briefly, partly because they belong almost entirely, to the province of Physics, an opinion in which we concur to some extent; but also, and chiefly, because the enormously increased extent and importance of chemistry, especially of organic chemistry, rendered every moment of time, in a course of lectures, precious in the highest degree. It has been our own experience to attend lectures on chemistry, with a larger portion of time allotted to the Imponderables, than was truly consistent with justice to the course, as inorganic chemistry was merely reviewed hastily and as it were quickly got rid of at its termination. And at the same time, the Professor of Natural Philosophy was recapitulating a great deal of what had already been gone over by the chemical lecturer. We think it proper, however, that a short explanation of these subjects should be given in a work like the present, in relation to their most important bearings on chemistry.

There is one more feature of this work, to which we would direct attention.

In describing chemical processes, or chemical changes, our author has, as a general rule, added to the verbal description, a representation of the re-action in the form of an equation, exactly as he is in the habit of doing in his lectures. The use of such equations enables us to place the most complex reactions in the clearest point of view; and they also

furnish data for all the calculations which are so often required in the laboratory.

The present work is exclusively designed for the use of Students attending lectures on chemistry, and is well adapted as a text book. It is more convenient than the larger elementary works, and is especially useful from the very well arranged manner in which the subject is divided and considered. A most copious and correct index is added, besides the synoptical table of contents, which must prove of great assistance, and without which it is sometimes a great labour indeed, to refer to any work.

We most cordially recommend the book to students attending lectures, and even to the Practitioner, who will find embodied all the discoveries in chemistry to the present hour, more especially in the inorganic kingdom.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Plaie Pénétrente du poumon suivie de guérison.—Par le Dr. DELERY.

Le 13 du mois dernier je fus appelé pour voir M. B^{***}, âgé d'environ quarante ans, qui venait de recevoir plusieurs blessures, une entre autres qui avait pénétré dans le poumon gauche au niveau du cœur, à trois ou quatre pouces en dehors de cet organe. Lorsque j'arrivai, M. B^{***} était étendu sur son lit, d'une pâleur extrême, et dans un état de grande excitation. Le Dr. Dalton, arrivé avant moi, l'avait trouvé évanoui, presque sans pouls, et comme près de rendre le dernier soupir. Quant je l'examinai, le pouls était revenu, mais il était encore faible; la peau était fraîche et la figure couverte d'une abondante transpiration.

On n'entendait aucun souffle vésiculaire du côté gauche, et il n'était possible de percevoir les bruits du cœur qu'à la région épigastrique, signes certains d'un vaste épanchement à l'intérieur. La respiration était courte, gênée, souvent interrompue par une petite toux sèche et douloureuse qu'accompagnait un jet de sang et d'air qui se faisait par la plaie. Celle-ci était étroite et triangulaire; le sang continuait de s'en écouler en nappe quand le malade cessait de tousser; il en sortait aussi par la bouche.

Cependant la réaction s'opérait, le pouls devenait fréquent et dur. Une heure ou deux après notre arrivée, il se fit, vers la tête et les poumons, un raptus de sang qui menaçait de produire la suffocation. La respiration devint presque impossible, et le malade manifestait, par des

signes, le besoin d'air qu'il ressentait. Il éprouvait, en outre, une douleur aigue qui occupait tout le côté gauche et s'étendait, en arrière, jusqu'à l'omoplate.

Traitement. Saignée d'une livre, application de compresses d'eau froide sur la plaie, repos absolu, boisson froide, défense de parler.

Le 14 à sept heures du matin, nous revoyons le malade le Dr. Dalton et moi : la nuit a été assez tranquille, mais pas de sommeil, un peu d'oppression, douleur aigue à la région précordiale, le pouls est redevenu fort et dur. *Prescription...* application de 8 ventouses pour tirer une livre de sang. Vers dix heures, suffocation imminente : on court chez le Dr. Dalton qui demeure dans le voisinage ; il pratique une saignée d'une livre et demie à deux livres ; il en résulte un grand soulagement. Le soir rien de nouveau, toujours un peu de gêne dans la respiration. Pendant la journée du 15, rien de notable ; le 16, le malade demande à manger ; on lui accorde du bouillon avec un peu de pain rôti : il se lève et se met dans son fauteuil. Le 19, le mieux continue, mais il se plaint toujours d'un peu d'oppression et de la même douleur au côté...vésicatoire sur le point douloureux, application sur la partie dénudée d'un huitième de grain de morphine deux fois par jour ; la douleur disparaît, M. B*** reprend ses occupations avec ménagement : les bruits du cœur commencent à se faire entendre distinctement ainsi que le souffle vésiculaire. Le 20 le mieux se maintient, le 21 nous cessons de le voir.

Je dois noter que le premier et le second jour la difficulté pour uriner était telle que nous fûmes sur le point d'avoir recours au cathétérisme. Cette difficulté tenait à la douleur occasionnée par les mouvements nécessaires pour l'émission de l'urine : il y avait quatre autres blessures, peu graves, il est vrai, mais suffisantes pour rendre les mouvements du corps douloureux.—*L'Union Médicale.*

PATHOLOGY AND PRACTICE OF MEDICINE.

WHITE CELLS IN THE BLOOD.

Dr. Quain presented, under the microscope, a specimen showing an excessive number of white cells in the blood. Dr. Quain said that the red globules would be seen to have accumulated as usual in rouleaux ; and throughout the rest of the field were numerous white cells, considerably larger than the red ones, and containing granules or nucleoli. The blood which furnished these appearances was taken from a man 37 years of age, who served as butler in a gentleman's family. His habits were temperate, and till the last twelve months his health had

been good. Since that time, however, he had suffered from a cough and shortness of breathing, which latterly had become more distressing. Dr. Quain discovered, on examination, that several absorbent glands in the neck, axilla, and groin were enlarged and succulent, that a small quantity of fluid was contained in the peritoneal sac, that there was considerable increase in the size of the spleen, and some enlargement of the liver. His legs and feet were œdematous. He passed about two pints of urine daily, which was turbid and loaded with lithates, but free from albumen. No evidence of pulmonary phthisis could be obtained, although the patient seemed inclined to think he was suffering from this disease. Alkaline diuretics, combined with spirit of juniper, were prescribed; and under this treatment the œdema of the legs diminished, and the urine became clear and healthy. The man is now slowly regaining strength. Dr. Quain related another case in which a similar disease of the blood existed; it was of a woman aged 45, the wife of a publican, who had borne eleven children, and, eighteen years before, when resident in Bedfordshire, had suffered from ague. In March last, she first began to suffer from pain and swelling in the abdomen, since which she had never been in good health. She first saw Dr. Quain on the first of September last, and at that time the menses were suppressed. The liver and spleen were enlarged; some ascites existed. The blood was found to contain the large cells mentioned in the preceding case, and, in addition, all the blood globules presented a more or less granular character, owing, apparently, to a puckering of the margins of the cells. The globules did not aggregate as usual. The patient was seen only once, and that as an out-patient. It appeared, on a subsequent inquiry made after her, that she died a few days subsequently.—*Medical Times & Gazette.*

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

An inquiry into some of the relations between menstruation, conception, and the influence of lactation in causing abortion; founded upon an analysis of the histories of one hundred women. By ROBERT BARNES, M.D. (Lond.,) Obstetric Surgeon to the western general dispensary, and late lecturer on Midwifery.

Mr. ROBERTON, quoting Haller, and Dr. Blundell, seems to lean to the opinion that the belief in the protective influence of lactation against conception is limited to the vulgar, and not generally participated in by physiological or obstetric writers. This is hardly a correct conclusion. I am disposed to believe that most obstetric authorities concur in the popular belief, that conception does not ordinarily occur

during lactation ; but it is almost certain that very imperfect ideas prevail about the extent to which the law is invalidated by exceptions. One author at least, Dr. Tyler Smith, enters somewhat elaborately into the physiological reasons which determine the alternate activity of the ovaria, of the uterus, and of the mammæ. He illustrates this subject by describing the successive phenomena of ovulation, gestation, and lactation, as forming a great genesial cycle, fulfilled by the successive functional activity of the organs of generation.

It is not my purpose to dispute the existence of such a law, but simply to endeavour to determine by numerical researches the *extent* to which the functional activity of one of the generative organs excludes that of the others ; to elucidate some of the reciprocal actions of the generative organs, and some of the consequences which result when the functional activity of the ovaria, the uterus, and the mammæ, are in contemporaneous operation.

I scarcely deem it necessary to remark, that the endeavour to bring even the apparently best established physiological law to the rigorous test of numerical analysis, is seldom a superfluous or unfruitful task. If, to use the present instance, we assume it to be a law that the ovaria, the uterus, and the mammæ have each their appointed successive period of activity, it must still be a matter of interest to determine the exact extent to which that law prevails ; to ascertain the relative proportion of the exceptional cases ; and to trace the effects which flow from these accidental deviations from that which is presumed to be the normal course.

Previously to the investigations of Mr. Robertson, of Manchester, (1831,) followed by those of Dr. Laycock, of York, (1842,) no accurate data having any bearing upon this subject existed. Mr. Robertson concluded, from the facts he had collected, that " there will elapse an interval of from *twelve to fifteen months* from parturition to the commencement of the subsequent pregnancy," in seven out of eight women who suckle as long as the working classes in this country are in the habit of doing. He considered that the law was proved, but it is obvious that he encountered numerous exceptions. Dr. Laycock's inquiries afforded results similar to those of Mr. Robertson. Taken together, the inquiries of Mr. Robertson and Dr. Laycock afforded suf-

this, to ascertain the extent to which lactation operates in preventing menstruation. The series of observations which form the basis of this paper, embrace both these objects. The facts relating to the question of the influence of lactation in preventing menstruation and pregnancy, correspond to a greater extent with those of Mr. Roberton and Dr. Laycock. The facts in my paper show the proportion of instances, in one hundred women, in which menstruation and pregnancy took place during lactation. One table will further show, what might indeed be anticipated, although Mr. Roberton failed to trace the connexion, that those women who are subject to menstruation during lactation, are also the most prone to conceive during that period. 'Now, if we admit that menstruation is essentially an ovarian function, then we possess evidence not only of the frequent contemporaneous activity of the mammæ and the uterus, but also of the mammæ and ovaria. But a further analysis of the facts recorded in my tables, will illustrate other reciprocal actions of the generative organs. One striking fact will become manifest, viz., the extraordinary proportion of abortions which follow conception during lactation. When we observe that the attempt to maintain the contemporaneous activity of the mammæ and the uterus, leads to the expulsion of the embryo, we cannot but perceive a strong confirmation of the law, that the ovaria, the uterus, and the mammæ assume an alternate action. The inquiry into this subject of abortion, as connected with lactation, will, I believe, be found to constitute an interesting contribution to the history of abortion. It is a subject to which the researches of Mr. Roberton and Dr. Laycock did not extend.

I will, in the first place, inquire—*What is the influence of lactation in preventing or retarding menstruation?* It will appear from the first table, that out of 100 women, 37 menstruated during lactation. In some of these instances the menstruation returned within one month of delivery; in many, it continued throughout the whole period of lactation, unless, as frequently occurred, it was arrested by a new pregnancy; and in several, lactation could not arrest menstruation beyond twelve months. Indeed, there can be little doubt that in certain women the ovarian, or ovario-uterine actions concerned in menstruation, are very difficult to repress. In no less than four instances, even pregnancy did not prevent menstruation; and it is deserving of remark that in these same instances menstruation attended lactation as well. It will be shown hereafter that such women are more than usually apt to abort. Indeed, it is easy to conceive that the ovarian activity, and the condition of the uterus at the menstrual periods, must ~~will~~ the retention of the embryo.

The same table will also exhibit the relation between menstruation during lactation and conception. Out of the 37 women who menstruated during lactation, 24, or two-thirds, conceived. Out of 159 conceptions during lactation, 79, or one-half, occurred among the women who menstruated, while the remaining 80 conceptions fell to the 63 women who did not menstruate during lactation. In many women, again, it was especially observed that the appearance of menstruation during lactation—no matter at what period (in one case as early as five weeks)—was the signal immediately preceding conception. Some, for example, remarked that whensoever menstruation occurred during lactation, then conception ensued ; on the other hand, they did not conceive on those occasions when menstruation did not appear. In other cases, it was remarked that lactation had no influence in retarding menstruation beyond twelve months ; in such instances it was generally found that the liability to conceive had returned simultaneously.—Of the whole number of women (56) who conceived during lactation, 24, or nearly one-half, were accustomed to menstruate also during lactation. It may be conjectured, also, that in many women conception anticipates the appearance of the catamenia ; and hence that some cases, at least, which in a numerical statement must figure among the instances of conception independent of menstruation, may, when rightly considered, be regarded as instances of conception which would not have occurred had the generative organs not been in that condition immediately antecedent to the appearance of the more marked phenomena of menstruation, and which were, perhaps, prevented by conception. But it must be admitted, that, even if we assume that some of the cases classed as examples of conception unconnected with menstruation, are, in reality, instances of the opposite kind ; still there remains a large number of cases of women who were never known to menstruate during lactation, even when prolonged beyond the usual period, but who nevertheless conceived. How far these cases can be permitted to weigh as proof against the theory which would limit the liability to conception to the periods immediately preceding or following the catamenia—a function presumed by that theory to mark the maturation of an ovule, and its fitness for impregnation,—I cannot here discuss.—But I may call attention to the circumstance that collections of facts of this kind may have an interesting application in the attempt to elucidate the obscure phenomena of generation.

But, avoiding the discussion of this question in its more philosophical aspects, I must refer to the facts I have adduced, as being amply sufficient to establish the practical point that there is a close relation between menstruation during lactation and conception. Mr. Robertson

would appear to have arrived at a different conclusion upon this point. He says :—"Of those woman who usually conceived while yielding suck, the majority did not menstruate ; in fact, the appearance of the catamenia during lactation did not seem to have any influence in disposing to conception."

The more minute analysis to which I have subjected my cases, will not sustain the opinion of Mr. Robertson. I may, moreover, remark that his opinion is at variance with the rule which obtain in women who are not suckling, and which manifestly indicates that in them there exists a near connexion between the phenomena of menstruation and conception.

The question has a most important practical bearing, the consideration of which I must postpone until after I have examined how far the table I have drawn up contains evidence serving to determine another question, viz.—*What is the influence of lactation in preventing or retarding conception ?*

Out of the 100 women, 56 once or oftener, in the course of their parturiant history, conceived during lactation. These 100 women had had 619 conceptions. Of this number of conceptions, 159, or one-fourth, had occurred during lactation. Hence it may be inferred that in 46 women, lactation had operated as an absolute protection against conception, and that in 450 lactations out of 619 (or three-fourths)

conception had been prevented. The proportion of women whom I have examined with that discovered by Mr. Robertson, has arrived at by Mr. Robertson, had conceived during lactation, and Dr. Laycock do not differ as regards the proportion of the total number of

conceptions occurred ?
 eived during suckling,
 have suckled for 19½
 conceiving soon after
 ring upon this point
 t will be seen that :

' lactation.

35 women, therefore, had 107 conceptions under 12 months' lactation. In one instance conception occurred as early as five weeks after parturition; in four instances only was conception noted as having been delayed beyond eighteen months.

There is a problem in the physiology of child-bearing of extreme interest to determine—viz. What is the normal interval between parturition and the succeeding conception in the human female? This is the problem which especially engaged the attention of Mr. Roberton. It involves the question, What is the normal period of lactation? Indeed, if we admit what must be conceded as a general law, however numerous the exceptions observed, that one of the natural effects of lactation is to adjourn conception, then it will follow the determination of the normal duration of suckling will assist us in ascertaining the proper intervals of conception. We may also derive some aid from the consideration of those cases in which lactation habitually protracted seemed to suspend conception for a certain definite period, at the expiration of which, conception regularly took place.

Mr. Roberton deduced from his observations, the corollary, that "in seven out of eight women who suckle for as long a period as the working-classes in this country are in the habit of doing, there will elapse an interval of from twelve to fifteen months from parturition to the commencement of the subsequent pregnancy." If we extend somewhat the proportion of exceptions, the law as stated by Mr. Roberton is probably a near approximation to the truth. It is, however, at variance with another conclusion of that very able author, viz., that the normal duration of lactation extends to twenty-four months. It can hardly be maintained that nature intended lactation to be continued throughout the period of gestation; and yet this contemporaneous support by the mother of one infant at the breast, and another in the womb, is implied, if we admit the truth of both Mr. Roberton's propositions. I shall presently place in a striking light the fact that Nature revolts against the attempt to load her with this double burden.

Neither am I prepared to assent unreservedly to another corollary of Mr. Roberton's viz.:—"That the secretion of milk is the *cause* which regulates the periods of conception in mankind, as instinct operates to the same end in graminivorous quadrupeds."

It would be more correct to say: The secretion of milk is a means provided *firstly* for the nourishment of the new-born infant; and that during the period required for that purpose, conception is usually suspended. There is another argument which somewhat forcibly illustrates the law that lactation has a direct influence in suspending conception. Many women who, either in consequence of the death of

their infants, or from some other cause, had brought lactation to an abrupt and early termination, and who neither menstruated nor conceived so long as suckling was continued, did so almost immediately on its cessation. The same result is also commonly observed after weaning in the ordinary course. But the efficient cause which presides over the intervals of conception probably lies deeper than this. The duration of lactation has been in all countries, and among the most widely different peoples, determined to a great extent by local or other circumstances, by prevailing customs or modes of life. It is to a certain extent an arbitrary thing. And the striking fact that lactation can rarely postpone conception beyond a certain period, clearly proves that the mere secretion of milk cannot be the *cause* which regulates the intervals of conception. Observation plainly establishes the fact that, in most women, after a certain period dating from parturition there is almost uncontrollable disposition in the ovaria and uterus to resume their proper functions, notwithstanding the forced activity of the mammæ, and the conception takes place.

Mr. Roberton refers to the custom of uncivilized tribes for the purpose of deducing an analogical argument in favor of an extended period of lactation. He cites one class, consisting of the Mexicans and other American tribes, who suckled their children for three years, and who were not allowed to cohabit with their husbands till after weaning. In the other class, comprising the Greenlanders, the tribes of Northern Asia, and numerous others, this temporary divorce does not obtain; but in them also suckling is continued for two years and upwards.

I believe the customs which may prevail upon this subject among barbarous or semi-civilized nations, supply no better evidence of the intentions of nature than do the customs of European women. Many a similar fallacious argument in obstetrics has been drawn from this reference to a presumed standard of nature. But it would not be difficult to show that no people pursue a life more exposed to the influence of external agencies, more artificial, and more widely different from that indicated by nature and by reason as the best fitted for the physical and moral attributes conferred upon man. The life of the savage approximates to the life of the brute creation. The nomadic habits, the dangers of the chase and warfare, and the frequent scarcity of food inseparable from savage life, give rise to a policy of Necessity, but which cannot be natural—of repressing by every possible means the increase of children. It is to this end that lactation is protracted among them beyond the limits usually observed in this country. In the first class of uncivilized tribes referred to by Mr. Roberton, among

whom the women live apart from their husbands during suckling, the object in view is evident enough. In the second class, lactation is kept up with the same object, although it is often defeated. It must also be remarked, that the most authentic intelligence we possess concerning the habits of barbarous tribes, places it beyond a doubt that the policy of repressing the increase of children is still further carried out in the revolting practices of artificial abortion and infanticide.

We cannot, therefore, accept the evidence afforded by the customs of barbarous tribes, in seeking to ascertain the normal duration of lactation. But we are not without other means of forming an opinion. Many women cannot succeed in prolonging lactation beyond a certain time: which having arrived, the milk falls off, or becomes thin and watery, losing the proper character of milk, and no longer agrees with the infant. The period at which this happens is mostly, I believe, about twelve months after delivery. About this time, also, it is generally observed that the infant is furnished with teeth, which, if not adapted for mastication, at any rate assist in the prehension of food of more consistency than milk; and it is commonly observed that about this time such food has become more essential to his health and growth. Another argument may be drawn from a circumstance frequently observed, of which there are several instances in my tables—viz. that at the end of twelve months, menstruation spontaneously returns, and conception is apt to occur, as if at this period the proper term of lactation had expired. In the absence of any more exact data, it is not unreasonable to accept such indications. They incline, I believe, to fix the normal period of lactation at from twelve to fifteen months.

In 80 women I found the average duration of lactation to be $12\frac{1}{2}$ months. The average duration of 36 women who did not conceive during suckling, was 13 months; of 39 women who did so, 12 months. Mr. Robertson found the average age for weaning their children was $14\frac{1}{4}$ months for the women who had not conceived during suckling; and $15\frac{3}{4}$ months for those who had conceived once or oftener while so engaged. This result is opposed to mine; and it is also, I think, contrary to what might be anticipated. Those women who find that whilst suckling they do not become pregnant, will be likely to protract, that function; and accordingly, in my tables, there are no less than five women who did not wean under two years. On the other hand, those women who do conceive while suckling, will frequently bring that function to an abrupt termination on making the discovery that they are pregnant. I have recorded one case in which suckling was arrested in three months from this cause.

I now proceed to examine another most interesting question—one

upon which the facts I have collected throw a forcible light—viz., *What is the influence of lactation in causing abortion?*

Out of 100 women, 41 had had abortions; of these 16 had conceived during lactation. The 41 women had had 74 abortions; of these, 27 followed conceptions during lactation. It thus appears that the proportion of foetal abortions to total conceptions, was 12 per cent.—The proportion of abortions following conceptions during lactation, was 17 per cent; and the proportion of abortions unconnected with lactation, only 10 per cent. This large excess of abortions following conceptions during suckling, places beyond a doubt the influence of lactation in producing that event.

It is a matter not without interest in a pathological and therapeutical point of view, to inquire in what manner lactation operates in conducing to this result. A very acute and ingenious author ascribes the most important effects to irritation of the mammary nerves. The following quotation expresses the views of Dr. Tyler Smith:—"Irritation of the mammary nerves may produce abortion. That cause is seen in operation in cases of undue lactation complicated with a second pregnancy. Cases occur in which, during prolonged lactation, two or three conceptions and abortions follow each other, the latter being caused by the irritation of constant suckling. The question naturally suggests itself whether it is not the constitutional debility, rather than the local irritation, which induces abortion in these cases; and there can be no doubt that this, like many other anæmic conditions, may help to produce the accident. There is, however, over and above this, mammary irritation as a distinct cause."

Observation and reflection alike lead me to conclude that lactation leads to abortion by impairing the health of the mother, and to assign a very subordinate influence to the irritation of the mammary nerves. The theory of mammary irritation, indeed, as expressed in the passage I have quoted, is so qualified, that it can scarcely be entitled to be recognised as a distinct cause. The remark that irritation of the mammary nerves may produce abortion, is limited to instances of "*undue lactation*," of "*prolonged lactation*," complicated with a second pregnancy. If mammary irritation operates only under this condition, it has of course no independent efficiency; and we must look to those changes brought about in the maternal system and in the ovum for the real agents. In order to prove that simple mammary irritation may operate in producing abortion, it would be necessary to show that abortion is a frequent occurrence in the *early* months of suckling—a period when mammary irritation is the greatest; it should be observed in healthy women, and the embryo and envelopes should be sound. I

will venture the remark that such a combination of circumstances is of rare occurrence. It is true that the influence of suckling in causing contraction of the womb is most remarked immediately after delivery ; and that the contractions so induced have a sensible effect in constringing the uterine vessels, and in expelling clots. Some women also experience for some time after delivery, at every application of the infant to the breast, some degree of uterine pain, and sometimes even a discharge of blood. But it is equally true that in most cases this responsive sensibility of the uterus to mammary impressions, gradually lessens as the interval from parturition increases. By the time that another conception has occurred, it is probable that the uterine susceptibility to such impressions is small. I do not remember ever having observed a case of abortion, in which all the circumstances were properly inquired into, without detecting some alteration of the ovum, or some diseased condition in the mother. The healthy ovum clings to the healthy parent with remarkable tenacity, defying the most long-repeated, as well as the most violent impressions upon the nervous system to dislodge it.

I may, however, here remark, that there is not a mode in which mammary irritation does appear to have a direct influence in producing abortion. In some women, as I have before observed, the application of the child to the breasts causes a turgescence of the uterus, sometimes to the extent of effusion of blood from its walls. It is clear that when this occurs, the adhesion of the ovum is imperiled. But this is a mode quite distinct from simple excitation of the diastaltic function.

There is one circumstance which throws considerable light upon the excessive frequency of abortions following conceptions during suckling, which I have deduced from the analysis of my cases. I have already shown that those women who menstruate during lactation are the most prone to conceive. They are also the most prone to abort. Out of twenty-seven abortions following conceptions during lactation, no less than nineteen occurred in women who were accustomed to menstruate during suckling. It is not unreasonable to infer, that it is to the excessive functional activity of the ovaria and uterus in these women, that the frequency of abortion in them is to be attributed. Ovarian irritation, then, *to the point of exciting the menstrual secretion*, is a much more frequent cause of abortion than irritation of the mammary nerves. Dr. Tyler Smith has also expressed the opinion, that certain cases of hæmorrhagic menstruation are, in reality, cases of abortion in which the ovum escapes unobserved, pregnancy not being suspected. My own observation distinctly confirms his position, that abortion mostly happens at the menstrual periods.

But according the first place in the production of abortion during suckling to ovarian irritation, the second must, I think, be given to the anæmic condition of the mother, induced by the double tax called for by the demands of the fœtus in utero on the one hand, and by the infant at the breast on the other. I believe that few women are able to bear this double burden with impunity. In some instances, the attempt to continue lactation after conception, *cannot* be persevered in. A constitutional revulsion occurs, which at once, and imperatively, announces that persistence is useless. The woman is seized with sickness, languor, and loss of strength ; she feels that she is unable to continue. The milk all at once disagrees with the infant. Diarrhœa ensues ; and if suckling is persisted in, it falls off. But when such marked indications do not manifest themselves at the outset, others not less important arise if suckling is long kept up after conception. I have constantly remarked, in women who were making this unnatural call upon their resources, a pallid, care-worn expression of features ; emaciation, or flabbiness of the soft tissues ; a feeble pulse, easily hurried by the slightest cause of mental disturbance ; palpitation, excessive nervousness and lassitude, and pain in the back, between the shoulders. Auscultation seldom fails to reveal the ordinary indications of anæmia. Bearing upon this point, I endeavoured to ascertain the effect of a second conception upon the secretion of milk. The facts I have hitherto collected are imperfect. In some instances, no great change in the quantity was noticed. In many the milk fell off in quantity ; and in some it was arrested altogether. When abortion happened, the flow of milk was sometimes restored. If the quantity of the milk is so sensibly affected, it is not less certain that it becomes deteriorate in quality. The effete materials resulting from the utero-placental circulation, are thrown into the maternal blood, constituting a direct source of injury to the infant at the breast. The drain upon the system, through the mammary secretion, operates further by abstracting from the blood those nutrient elements which are requisite for the development of the fœtus. When the blood is subject to these sources of contamination and impoverishment, the assimilative and secretive functions necessary to restore its condition soon become impaired. A degraded state of the maternal blood operates in the following manner : *firstly*, it is unfitted to abstract from the fœtal blood its eliminada ; *secondly*, it is unfitted to impart to the fœtal blood the necessary nutritive elements ; *thirdly*, it is a direct source by which impurities are communicated to the fœtal blood, having a positively toxic effect ; and *lastly*, the languor or inertness of the current of the blood in anæmic patients, still further disqualifies it from effecting those changes in the fœtal blood, which demand not only a healthy con-

stitution, but a sufficient momentum of the maternal blood, for their production. The ultimate consequence of this combination of circumstances, is, that the fœtus not unfrequently perishes for want of proper nutrition, and abortion follows.

Defective nutrition, or depraved blood, may also give rise to disease of the embryo or its envelopes, of which the most frequent form, I believe, will be found to be fatty degeneration of the villi of the chorion, and so lead to abortion in this way.

The causes of the excess of abortions during suckling may be arranged as follows :—

1. *Ovarian irritation*, determining menstruation.
2. *Mammary irritation*, causing *turgescence* of the uterus and discharge of blood.
3. *Anæmia* of the mother, which may destroy the fœtus, either through degradation of the quality of maternal blood, or through the consequent *inertia of the circulation* of the mother.
4. Superinduced disease of the ovum.

In the preceding remarks I have only sought to account for the abortions during suckling in excess of those to which women are liable under different circumstances. Of course women who are suckling are liable to the same cause of abortion as operate in women who are not suckling; and it is probable that these common causes are even aggravated in intensity by the circumstances attending lactation.

Practical indication.—The facts I have collected, and the conclusions established, have their applications in practice. The first question which forces itself upon our attention is this :—Should suckling be discontinued on the occurrence of a second pregnancy? I refer to what has been said concerning the influence of suckling in causing abortion, to prove the necessity of doing so. But a difficulty arises in the determination of the existence of pregnancy in the early months, when the danger of abortion from the continuance of suckling is most imminent. I have known women who have gone on suckling for two and even three months after conception, in perfect ignorance of the fact. The diagnosis of early pregnancy is always difficult; when it complicates lactation it is unusually so. In some cases, as we have seen, menstruation precedes conception. When this occurs once or oftener, and is then arrested, it is, of course, a valuable indication. But there are numerous cases in which conception occurs without the previous appearance of the catamenia. In such instances the suddenly diminished secretion of milk may justify a reasonable conjecture that pregnancy is the cause. Some women are warned that conception has occurred by the sudden supervention of sickness; others, by that constitutional re-

vulsion to which I have before alluded. As soon, however, as the existence of pregnancy is discovered, there can be little doubt that lactation should be brought to an end. There are three beings—the mother, the infant, and the embryo—who must all suffer by persisting. In the interest of all, weaning is essential.

But there is another case in which I would also raise the question of weaning, and which is more open to discussion. Should weaning be advised when *menstruation* appears during suckling? There are several considerations which weigh in favour of this course. We have seen that the women who menstruate during suckling are exceedingly prone to conceive, and if they conceive, to abort. By weaning, the liability to conceive is, perhaps, not much increased; and, consequently, the hope of averting pregnancy by suckling is small. But the fruit of a conception after weaning is much safer than the fruit of a conception before weaning. In the interest of the future progeny, then, weaning on the appearance of menstruation is plainly desirable. Again, it is not an unreasonable presumption that the return of menstruation is an indication that in the particular individual the time has arrived when the ovaria and uterus, having resumed their natural functions, have superseded the activity of the mamæ; and, as a consequence, it may be inferred that the milk secreted by the mammæ under these circumstances has become unfitted for the nourishment of the infant. Indeed, I have observed in several instances, where suckling was persevered in after the return of menstruation, that the milk alone was no longer sufficient, and that artificial food was resorted to. It is not in the course of nature that menstruation and lactation should proceed together. If menstruation will take place in spite of lactation, and if it be further probable that when menstruation returns conception will follow, what useful end can be answered by persisting in suckling?

I entertain a confident opinion that, as it is proved that a large excess of abortions takes place among women who suckle after menstruation and conception, so a considerable proportion of this excess of abortion may be observed by weaning on the appearance of menstruation, or as soon as the existence of pregnancy is known.

To draw all the observations touched upon in this communication into a few points;

First. Lactation exercises a considerable influence in preventing menstruation and conception.

Secondly. This influence appears to be marked and constant in some women, and to exist but feebly in others.

Thirdly. The influence of lactation in averting menstruation or conception, cannot for the most part be kept up longer than twelve months.

Fourthly. There is a close relation between the occurrence of menstruation during suckling and conception—*i. e.*, when menstruation appears during suckling, conception is very likely to follow.

Fifthly. When pregnancy takes place during suckling, and suckling is continued, abortion is very apt to follow.

Sixthly. The chief cause of the abortions brought about during suckling, are the revolt of the ovaria and uterus, evinced by the return of the menstrual nusus, and the deterioration of the mother's blood; to which must be added, superinduced disease of the ovum.

Seventhly. The practical conclusion that weaning should be enjoined, not only whensoever pregnancy takes place, but also whensoever menstruation returns.—*Gloucester-terrace, Hyde-park, November, 1852.*

TABLE I.

ILLUSTRATING THE INFLUENCE OF LACTATION IN ARRESTING MENSTRUATION, AND THE RELATION BETWEEN MENSTRUATION DURING LACTATION AND CONCEPTION.

100 Women.

Number who menstruated and conceived during lactation	24	Number of conceptions during lactation among the 37 women who menstruated	79
Number who menstruated during lactation, but did not conceive ..	13	Number of conceptions during lactation among the 63 women who did not menstruate	80
Total number who menstruated during lactation	37	Total of conceptions during lactation.	159
Total of women who conceived during lactation	56		

TABLE II.

ILLUSTRATING THE INFLUENCE OF LACTATION IN PREVENTING OR RETARDING CONCEPTION,

1. Duration of Lactation.

Average duration of lactation (in 80 women.	12½ months.	
Average duration of lactation in women (36) who did not conceive during lactation ..	13 months.	N.B. Five women suckled 24 months.
Average duration of lactation in women (39) who did conceive during lactation	12 months.	N.B. One woman suckled only three months, conception occurring.

2. Conception during Lactation—100 Women.

Number of women who conceived during lactation	55
Number of conceptions during lactation	159
Total of conceptions in the 100 women	618, or 26 nearly.

3. Classification of Conceptions according to periods at which they occurred.

In 9 women who had 18 conceptions during lactation, the period of conception is not [specified.

12	"	had	31	"	under 9 months' lactation.	} 35 women had 107 conceptions under 12 months' lactation.
22	"	"	77	"	" 12 "	
16	"	"	33	"	after 12 "	
*60—4—56			159			

The earliest instance of conception during lactation was at 5 weeks,
" latest " " " " 24 months.

* Four women had conceptions under and above twelve months' lactation, and are counted twice over.

SHOWING THE INFLUENCE OF LACTATION IN CAUSING ABORTION.

Total number of conceptions 619	Number of conceptions during lactation .. 159	Number of conceptions unconnected with lactation 461
Total number of women who aborted 41	Number who aborted having conceived during lactation .. 16	Number who aborted* independently of lactation 28
Total number of abortions 74		
Proportion of total abortions to total conceptions .. .. .29	Number of abortions following conception during lactation .. 27	Number of abortions unconnected with lactation 47
Proportion of women who aborted after conception during lactation to total number of women who conceived after lactation .. .. .29	Proportion of abortions following conceptions during lactation .. .. .17	Proportion of abortions following conceptions unconnected with lactation .. .10

(London Lancet.)

MATERIA MEDICA.

Veratrum Viride—*American Hellebore*. By W. C. NORWOOD, M. D., Cokesbury, S. C.

GREEN hellebore—that put up by the Shakers—is generally in neat pound packages. They label their *veratrum viride*, white hellebore. In ordering, if not particular, a person is liable to receive the white hellebore proper, for the American or white hellebore of the Shakers, described by the United States Dispensatory. Its remedial powers are 1. acrid; 2. expectorant; 3. diaphoretic; 4. adanagic; 5. nervine; 6. emetic; 7. sedative—arterial sedative. I might add an 8th property or power, viz., it creates and promotes appetite, in small doses, beyond any agent we are acquainted with.

Its acrid powers are slight, and mostly confined to the mouth and fauces, and do not excite that warmth in the stomach, and general glow, peculiar to the more active excitants as acrid substances, such as capicum, &c.

The expectorant powers are not surpassed by any article for which this property is claimed.

Its diaphoretic powers are manifested with as much certainty and extent as by any belonging to the same class.

Its adanagic, alterative, or deobstruent powers are, we believe, superior to those of calomel or iodide of potassium, and, in connection with other properties, are anticipated great and permanent relief from it, in the treatment of cancer and consumption.

*Three women had abortions, both connected and unconnected with lactation.

We are unable to select any term fully expressive of our meaning, or more capable of conveying a knowledge of the power of the article in this particular, than *nervine*. Its *nervine* powers are great, allaying morbid irritability and irritation, but more especially morbid irritative mobility, and relieving pain in febrile and inflammatory diseases, without stupifying and torpifying the system, as opium and its various preparations are known to do. We might go on to specify many circumstances, where, in a minor and subordinate sense, it relieves, without any of the unpleasant effects peculiar to opium following it, as muttering while dozing, lying with half-closed eyes, frightful dreams, torpor of the bladder and bowels, &c. We preferred to call this property or power *nervine*, from its relieving pain, to as great, and perhaps greater extent, than opium, in many inflammatory diseases, and more especially where there is irritative mobility.

We avoided the term *sedative*, because it is often applied to narcotics, and likewise to articles that reduce *entonic* action ; but more particularly on account of applying it to designate one of the most valuable powers possessed by the *veratrum viride*.

It is one of the most certain and efficient emetics belonging to the *materia medica*, and one on which we, above all others, would prefer to rely, for the purpose of breaking up and arresting disease. Of course, we are speaking in a general sense, as all know there are immediate and certain specific effects, which can be obtained only by the specific effect of a certain agent. In our first use and experience with the article, we came to the conclusion that its effects were mostly confined to the stomach ; but a more extended experience has convinced us of its powerful effects on the liver. It possesses, in an eminent degree, the property of exciting the liver to action. It is not followed by prostration or exhaustion, after the paroxysm or effort of vomiting has ceased. It possesses a superiority over all other, or a large number of, active emetics, in not being cathartic. It is not refrigerant, reducing or antiphlogistic, in the sense that tartar emetic is, but may be given in any stage of pneumonia or typhoid fever. It is rather slow, perhaps, from the manner of administering it, in producing emesis, but the most certain of any article that acts as an emetic.

We now come to notice the seventh, and by far the most important of all its powers. We call it *arterial sedative*, for the very reason that we have at present no other term that so fully expresses the meaning we wish to convey. *Veratrum viride* possesses the power of controlling, we might say at will, the action of the heart and arteries. No man can give it in five successive cases of well marked pneumonia, without being convinced of this remarkable fact. It fails so seldom in producing this

astonishing effect, that we feel constrained to call it universal, on the principle that the exception proves the rule. *Exceptio probat regulum.* The certainty and extent of this power rests on such a "*cloud of witnesses*," that we shall not waste time in the farther proof of it.

We merely mention the eighth power, and leave the statement to be settled or not, viz., its ability to create and promote appetite.

It often produces severe nausea, frequent vomiting, intense paleness, coolness, and occasionally, coldness of the surface. In some cases, the vomiting is almost continuous. It occasionally excites hiccough. And where the nausea was severe, and vomiting frequent and almost persistent for the time, we have found the pulse small, slow and almost imperceptible at the wrist.

Our formula or recipe for making it is the follows :

R. Rad. veratrum viride, dried, - 8 oz.

Alcohol of the shops, - - 16 "

Digest at least for two weeks.

Of this preparation we give as follows : To an adult or grown man, eight drops to be given every three hours, increasing the dose one or two drops every portion given, till the pulse is reduced to 65 or 70, or nausea or vomiting ensue. Ladies, and boys or lads, from fourteen to eighteen, begin with six drops, and increase as above. Children, from one to five years old, begin with from one to two drops, and increase one drop only. When the pulse is reduced as low as wished, or nausea or vomiting occurs, reduce the dose one-half, in all cases, and continue the medicine so long as necessary to prevent a return of the symptoms. One or two portions, if necessary, of syrup of morphine and tincture of ginger, or brandy and laudanum, will relieve all the nausea, vomiting, or unpleasant effects that may follow the use of the tincture of veratrum viride, if given according to the above directions.

We mention the reduction of the pulse, or nausea or vomiting, as a secondary effect. We have reduced the pulse to 65 or 70, without exciting the least nausea, and continued in the same quantity, at a loss to know what the result would have suspended the action, we do not say. We have frequently continued without nausea or vomiting ; so that the effect is not dependant on either of the

of root we use, as being extra-
a will take the trouble to refer to
of Alabama, and published in the

June number of the Augusta Journal, for 1852, he will perceive that he added twice the quantity of alcohol that we directed, and it required from twenty to twenty-five drops to obtain its effect, and from ten to fifteen drops were used to continue and keep up the impression, when once excited. We would much prefer the waste of an ounce or two of the root, to being annoyed with a want of uniformity of strength of our tincture. We do not doubt that, if the root was dug at the proper time, and put up with care, that less would do. But, as it comes to us, we feel confident we have regulated the quantities as nearly as can be done under the circumstances.

We are convinced that quinine and brandy, but more especially quinine, are inadmissible in the treatment of typhoid fever, during the use of the *veratrum viride*. We have treated several cases of typhoid fever in council, where all the usual remedies had failed, and where there was an effort making to sustain action, and excite and diffuse heat, by brandy and quinine, and rubbing the surface generally with pepper, and notwithstanding all this effort, the pulse was so feeble, and peculiarly quick in the beat, that we could number it with difficulty, making it from 130 to 135, and the skin continued cool, with an intense burning and heat extending from the stomach to the fauces. Medicine of every kind whatsoever was withdrawn, and she was put on the use of the tincture of *veratrum viride*, commencing with three drops, and increased every three hours. The three drops nauseated and vomited, before the period for repeating the dose, which brought up a quantity of thick mucous and glairy fluid, resembling the white of an egg; after this, a large quantity of thick and dark bile. At the period, nausea and vomiting having ceased, we gave four drops, from which she vomited freely in half an hour, bringing up a large quantity of thick yellow bile, which afforded relief from the internal burning, and excited a general diffusion of heat over the surface, the pulse becoming more full and distinct. And by continuing the *viride* in three drop doses every three hours, and six drops every six hours, in a little cold water, by injection, the pulse, in forty hours, was reduced down to ninety, full and distinct, without the addition of a single portion of brandy or quinine. If this were a single or isolated case, we would not have mentioned it; but we have treated a number of cases with a like effect and success.

We usually administer it in a little sweetened water, and are specially particular not to leave a mixture of it with paregoric or lavender, or anything that will cover the taste and smell, unless there is a label on it, as a mistake might happen, by any person thinking that the paregoric or lavender were pure and unmixed.

We believe that we have given a general statement of its powers and

properties, of the mode of preparing it, method of administering it, and the means of relieving any unpleasant or drastic effects. The temperament, susceptibility, idiosyncrasy and circumstances of the case will modify the above directions, according to their force, number and extent, and can only be regulated by the person in attendance.

In our first published article, we were under the impression that it was narcotic. Having taken it repeatedly ourselves, we are fully persuaded that it is destitute of narcotic powers. We have taken it more than twenty times. A portion, of from five to seven drops, excites an acrid or biting sensation in the fauces, very much like lobelia. There is a gentle sensation or feeling of coolness in the stomach, and a slight feeling of coolness or moisture of the surface generally. Nine drops excites nausea or vomiting—the nausea, in our own case, not continuing more than fifteen minutes before emesis, and not severe. The contractions of the stomach were so rapid as to appear almost continuous. Just previous to, and during, for a short time after, vomiting, there was a slight tingling and sense of numbness felt about the joints generally, which was at its height during the act of vomiting. The feeling or sensation of numbness and tingling resembled that of a limb in the first stage of falling to sleep, and was not unpleasant. Many of its effects, that are called narcotic, are capable of explanation on other than narcotic principles. In venesection, if any person will take pains to notice the effects, he will find dilations and contractions of the pupil of the eye, lightness and giddiness of the head. So will he from opium, and in like manner from veratrum viride. No one pretends to attribute the effects following bleeding to any narcotic powers; but to a change in the quantity of blood sent to the brain, and the shock produced on the nervous system and brain. In the effects following opium, if any difference, there is more blood sent to the brain, or, at all events, there is little or no alteration in the circulation; still, there is nausea, giddiness, and dilation or contraction of the pupil, as in venesection. We now, by way of comparison, notice the effects of veratrum viride. The supply of blood is sent very slowly to the brain, and the shock to the nervous system is considerable; hence the capillaries are emptied, and the face and surface pale, as in venesection, and the giddiness and other effects nearly similar. And a proof of the position we are setting forth is, that this giddiness and paleness, &c., does not take place until its effects on the circulation are manifest.

If any man will study closely the effects of veratrum viride on the system, we are convinced that many of his notions of the pathology of disease, and of the *modus operandi* of many remedial agents, will be upset. It obviates the necessity of tonics and stimulants, with the few-

est exceptions, and venesection is rarely indicated. In fact, we are persuaded that stimulants rarely do good, where there is much vitiated or morbid action connected with the debility or exhaustion sought to be removed. We are equally satisfied that venesection is rarely indicated or beneficial, except in cases for the removal or subdual of pure æsthenic or entonic action, or for equalizing unequal excitement, or rendering the system susceptible to the impression of other agents. In the last two instances, in asthenic diseases, it is not often indicated or admissible, and depends more on the manner of taking it than on the quantity. In the first instance, which is the only one unavoidably indicating it, we rely more on the quantity taken than on the manner of taking it. We could give eleven successive cases of typhoid fever, treated successfully by veratrum viride, unaided, from the period we were called to see them, by brandy, quinine or venesection, and the two that had been bled, and were on the use of stimulants and tonics, were in as low and dangerous a condition as any. Eight out of the eleven were consultation cases, and, with the exception of one case, were all seen after the ninth day. One of the three remaining had been seen by another physician, and the other two were seen at the outset, and brought to a crisis. One on the fifth and the other one the seventh day. We state the circumstance of their being counsel cases, and that, in some of the cases, we were the second counselling physician, that the severity of the cases may be judged of to some extent.

There is a variety of typhoid fever, which prevails, in which the patients are what we call severely sick, and there is little or no mortality attending it. A physician we happened to know, had treated this mild kind, as we term it, till he felt convinced he was *master of the disease*, so to speak, and moved into a section of country where it was accompanied with great mortality. To use his own words, he was completely upset, and had no conception of the nature of the disease, or the best manner of treating it.

But to conclude this article, already too extended. We scarcely know of an acute febrile or inflammatory disease, in which veratrum viride is not indicated. In fact, wherever there is morbid action and vitiated secretion, in the wide circle or domain of idiopathic or symptomatic diseases, we believe it will be indicated, either internally or externally, and hope some one will turn his attention to its external application.—*Charleston Medical Journal*.

OPHTHALMIC AND AURAL SURGERY.

Fibrous tumour within the orbit protruding the Eye.—Extirpation.—Recovery. Under the care of Mr. CRITCHETT.

JOHN SEARLE, aged 48, dark complexioned and stout, but rather pale, was admitted into the Royal Ophthalmic Hospital, under Mr. Critchett's care, on August 25, 1852. In the lower half of the right orbit was a large solid-feeling but not well-defined swelling, by which the eye was considerably protruded, and forced upwards and outwards. The upper lid was distended and tense, the lower one everted, and its conjunctiva exposed. The eye was so much displaced that he could only look upwards; he had, however, perfect vision in that direction. The gradually progressing extrusion of the eye had first been noticed fifteen months previously, and the growth of the tumour had not been attended with more pain than its pressure on surrounding parts might well account for. He could assign no cause for its appearance, having as far as he knew, never received any injury to the part. His general health had, he thought, not at all deteriorated since it began to grow. When the disease commenced he was resident in the United States, and the surgeons whom he there consulted having declined to interfere, he had returned to England, in the hope that some operations for his relief might be performed. A consultation on his case having been held, it was decided to make an exploratory incision into the tumour, and to attempt its removal or not, as might, after so doing, appear desirable.

As the patient was remarkably courageous, and believed himself quite able to bear the pain attendant on the operation, chloroform was not administered. Mr. Critchett first divided freely the everted conjunctiva of the lower lid, and, having dissected it off, brought into view a firm, whitish-looking growth. When the latter had been, with care, separated from the surrounding parts, and several large portions removed, it was found to extend very deeply into the orbit, being apparently attached to the sheath of the optic nerve. Considerable hæmorrhage took place during the dissection, and the pain occasioned to the patient was so great that he became unmanageable, and appeared quite unable to bear any further protraction of it. It was accordingly deemed best to desist for the present, and, the cavity which had been made having been stuffed with lint, the patient was sent to bed.

The removed portion of the growth was firm, tough, and of a pale grey colour; when torn, it exhibited the appearance of radiating bands of parallel fibres. Under the microscope, it seemed to be made up of white fibrous tissue, with many elongated cells. Scarcely any constitutional

disturbance followed the operation ; the lower lid, and parts in lower half of orbit, however, became very much swollen ; from the latter, a large slough separated. During this time, his pulse was quiet, tongue clean, and appetite good. When the large hollow left by the separation of the slough was nearly filled up, he became an out-patient ; and the tumour having soon afterwards increased to nearly its former size, he was transferred by Mr. Critchett to the London Hospital, with a view to a second operation.

August 26.—The lower lid is everted as before, and exposes a florid and much thickened conjunctiva. The tumour, although it has increased rather rapidly, shows no tendency to ulcerate or bleed. From pressure on the globe, it has latterly produced very much pain, and the man is extremely anxious that something should again be attempted. Mr. Critchett accordingly having apprised him, that, from the deep attachments of the growth, the integrity of the eye would be much jeopardised in the dissection necessary for its removal, consented to make another trial. The patient having been placed under the full influence of chloroform the thickened conjunctiva was dissected from the whole front of the tumour, and the parts were held under by assistants. Mr. Critchett then carefully divided, without injury to the globe, the adhesions between the tumour and the surrounding parts ; having freed it to a considerable extent, he next seized it with a pair of toothed forceps, and made pretty firm traction, endeavouring at the same time, with a pair of blunt-pointed, curved scissors, to separate its posterior attachments. After a little manœuvring, a large mass was removed, which, as it was surrounded in most parts by a distinct fibrous envelope, probably included the whole of the growth. Its size was that of a large walnut, and it presented much the same appearances as before, save that, while not quite so firm in its general texture, it contained scattered in its substance numerous particles of bone ; there were also a few very small, smooth-walled cysts. No spots of ecchymosis existed ; it yielded no juice, and was with difficulty disintegrated by pressure.

There followed after the operation a pretty acute suppuration of the cellular tissue of the orbit, which, during the first fortnight, occasioned considerable swelling ; it was accompanied, however, with very little constitutional disturbance, and no inflammation of the eye itself. At the end of that time, the tumefaction began to subside, and the eye gradually receded. About the end of September, at the time of his discharge, the eye had resumed its natural place, or was, if anything, a little more sunken than the other. Vision was perfect, but owing to the injury which the inferior rectus had sustained, the eye was directed a little upwards. He could roll it with ease in every direction excepting downwards. A second

microscopic inspection of the growth, made after the last operation, coincided in its results with the former one ; and there can, consequently, be little hesitation in assigning it to the class of fibrous tumours, of which it was one of the loose-textured, cyst, containing variety which had, as is not unusual, undergone interstitial calcification in many parts. There is, therefore, every reason to hope that the man will now remain free from any reproduction of the disease. No case could better demonstrate the benefit conferred on practical surgery by the introduction of anæsthetic agents into use. Under any circumstances, the accomplishment of a dissection reaching nearly to the apex of the orbit, without inflicting on the eyeball either present or prospective injury, must be a most difficult task, and one which the slightest resistance, on the part of the patient, would render altogether impracticable.—*Medical Times and Gazette*.

MEDICAL JURISPRUDENCE.

Points in the Medical Jurisprudence of Gun-Shot Wounds. By R. A. KINLOCH, M.D., Lecturer on Surgery in the "Charleston Summer Medical Institute."

INTERESTING and important questions in legal medicine often spring up in connection with gun-shot wounds. The life or death of a human being may hang upon our ability to answer the simple inquiry as to the direction from which the projectile entered the body, or to certify, from the appearance of the wound, to the character of the instrument with which it was inflicted.

I do not propose to enter the wide and extended field of investigation into which a full examination of these inviting questions would carry us, as this is neither the time nor the occasion. I but allude to the matter here, as associated with a case which I think illustrative of the difficulty which at times we may encounter in the formation of a positive opinion upon the topics referred to.

Joseph M'Gorty, a lad about thirteen years of age, was, in December last, accidentally shot, as appeared on evidence, by a pistol discharged from the hand of one of several boys, who were engaged in an attack upon a negro, who had struck or otherwise injured them. The ball entered the abdomen about two inches above the left external abdominal ring, and made no exit. The wound was circular in its general appearance, or somewhat irregular or broken, at one or more points of its circumference ; the edges were inverted. The patient lingered several days, and died of peritonitis. From an autopsy, I discovered that the small intestine was wounded in two places, and had afforded extensive focal effusion. The ball was found loose in the pel-

vis, to the right of the rectum, and was somewhat irregularly flattened.

The case coming up before the legal tribunal, the parties being tried for the murder of the negro, and afterwards for the murder of the boy, my testimony was required in the latter case. The cause of death of course was palpable, and my evidence on that point, strictly speaking, all that was needed. It happened, however, that the examination of a witness, during the trial of the case of the negro, led some to infer that the ball which proved fatal to the boy had glanced from the earth, and thus inflicted the fatal wound. Although the law recognized no difference in the crime, whether the fatal instrument reached the victim in a direct or indirect manner, yet this afforded lawyers, with but little evidence for a defence, sufficient grounds for cross-questioning the medical witness, in order, if possible, to confuse the minds of an ignorant jury. And first, I was asked to state, from the facts obtained at the autopsy, what was the direction in which the shot entered the body. Three circumstances at once suggested themselves, as militating against the formation of a positive opinion upon this point: 1st. The *thinness* of the abdominal walls; 2d. The *movableness of the intestines* within these walls; 3d. The fact of the ball's having *neither made an exit, nor been imbedded in any of the structures*. The difficulty arising from the thinness of the abdominal walls I may illustrate by remarking, that if a sheet of paper be fixed perpendicularly in the air, and then perforated by a ball, it would be exceedingly difficult, from a mere inspection of the aperture in the paper, to say at what angle the ball had struck, or whether it had reached the paper in a horizontal direction, from below, or from above. It is true, the abdominal wall is much thicker than a sheet of paper; yet the elasticity of the tissues composing it prevents an additional barrier to our determining the question, from the mere appearance of the wound: so that the obstacle, in the one case, I conceive to be almost as great as that in the other. I introduce the comparison, however, merely for the purpose of illustrating my meaning.

In the next place, was the position of the intestines fixed and unchangeable, the continuity of the wound in these parts with that in the abdominal wall would, in the case before us, have been preserved, and thus afforded me a clue to the solution of the question. But, as such is not the case, the intestines being allowed a certain degree of motion—and the latitude of this, we can imagine, is not diminished in a patient suffering from peritonitis—no correct line of direction could be drawn.

Again, had the ball made its exit at the posterior part of the body, or had it been imbedded in some of the deep structures, I could, under either of these events, have traced a direct line of direction, and solved

the problem. But, it will be remembered, I found the ball down in the pelvis, where it had arrived by the force of gravity.

The next question was as to the cause of the flattening of the ball. This was certainly owing to its contact with some hard material. To have reached such material within the body, it must have penetrated the posterior wall of the peritoneum, to come in contact with bony tissue. I gained no such information from the examination. Neither was there an observable impression upon any portion of osseous tissue against which it was likely the ball might have impinged, nor any appearance of violence about the soft parts immediately covering this. I would here digress, however, to say that I thought this by no means conclusive, as the fluids of the body, during an examination of this kind, as also the changes which must have progressed since the accident, might have so obscured or modified the appearance of parts, as to have rendered such a discovery very difficult. And further, I conceived it *not impossible* for a ball to have impinged, even with force sufficient to have flattened it, against a bony surface, covered only by strong fascia, or an aponeurotic expansion, and left no impression easy of detection. We are all familiar with the fact, that a ball may be flattened against paper or cloth, if either of these materials be pasted against any solid structure, such as stone or iron, and yet the paper or cloth not be broken. About the sacro-verbral angle, the osseous structure is not covered with muscular substance, which, if present, would have afforded, in the case before us, evidence of the ball's having penetrated to the bone, but simply by ligamentous tissue, and in front of this we find very loose cellular substance filling up the space between the great iliac vessels. So loose is this cellular tissue that a ball might readily pass through it, without leaving distinct traces of its passage. But to return. I conceive the strongest objection to the ball's having struck bone, was the fact of its having been found *within the peritoneum*, a shut sack. For, to have been here, and yet to have impinged against osseous structure, it must have passed out of the sack, and then, by a rebound, have again entered it—a thing exceedingly improbable, even laying aside the fact of my having failed to observe a wound in the posterior wall of the peritoneum.

But it was thought the question could be *positively* determined from the character of the external wound, and I was asked to say whether this was made by a round smooth bullet, or by such a one as I had extracted from the dead body. In giving an opinion here, I could perceive I had to contend with a difficulty which a medical man often meets with in the courts of justice. It seemed to have been expected that the configuration of the wound should assuredly have corresponded, in all respects, to that of the body inflicting it—that the angles and lines of

the one must have mathematically conformed to the angles and lines of the other. Entertaining such views, it is natural for many to wonder at the unwillingness of medical men to give a positive opinion in particular cases. They forget that "there is a doubt that springs from knowledge." In the present instance, I conceived that the wound, which I have described, might have been made by a round smooth bullet, or by a somewhat irregularly shaped one. I did not feel justified in making the hair-breadth distinction which seemed to be expected. The human body is composed of materials of such different density and elasticity, so diversely arranged so variously circumstanced in their several portions, that it is idle and unphilosophical to expect always to realize the same appearance of parts, even though they may have suffered from external violence, apparently or precisely the same. This truth is forcibly exemplified by the discussion which took place in the French Academy, after the revolution of 1848, respecting the size and appearance of the orifice of entrance and exit of gun-shot wounds. It had been considered an established fact, that the orifice of entrance was smaller and more regular than the orifice of exit. In this discussion we find M. Blandin maintaining the contrary opinion, and asserting that he had never met with a single gun-shot wound, during the revolutions of 1830 and 1848, in which the aperture of entrance was not *larger* than that of exit; and the observation of no less a surgeon than M. Malgaigne was confirmatory of this remark. M. Roux thought that there was no absolute rule, much depending upon the force and direction of the impelling power.* If, then, such competent observers as these differ so essentially, upon a point apparently of easy solution, can we be often justified in referring a particular appearance of a gun-shot wound solely to some modification of the body inflicting the injury? I think not, believing as I do, that the force, distance and direction of the impelling power, as remarked by M. Roux, together with many other circumstances, give to these wounds their character. We are told by Hennin, Guthrie, and other military surgeons, that, under peculiar circumstances, a round smooth bullet will inflict an injury closely simulating an incised wound, and that the same agent will also, at times, present us with an irregular, jagged wound. These, it is true, are exceptional cases; yet, when the question of life or death depends upon a word from us, it is well to have them in mind. We are guilty of no assumption when we say that the issue of life or death, in these cases, may depend upon a word from the physician. An individual in Delaware, not many years ago, was killed, by being shot through the body. It was proved that his assailants stood on opposite sides to his person: One of

* Brit. and For. Med. Chir. Rev., Oct. 1848.

them was condemned and executed, because the medical witness testified that the bullet hole next to him was the *largest* and therefore the *orifice of entrance*.*

How essential is it for the medical witness to possess a firm conviction of the truth of his opinion. How natural—how proper—the feeling which prompts us to obey that fundamental rule in legal medicine, to give the accused the benefit of our doubt—to allow the guilty to escape, rather than cause the innocent to suffer.—*Charleston Medical Journal*.

UN MONSTRE.

Nous recevons du Dr Faréou, de Sainte-Marie, l'observation suivante que nous nous empressons de publier. C'est un des cas de diplogénèse les plus curieux dont nous ayons lu l'histoire. Le docteur Faréou a eu l'obligeance de nous adresser un dessin au crayon de cette monstruosité ; mais l'exactitude rigoureuse de son observation rend tout image superflue.

“ Appelé le 11 Février 1850 vers huit heures du soir auprès d'une femme en couche, je trouvai qu'elle venait de mettre au monde un enfant à terme, du sexe masculin. Le cou, le thorax, l'abdomen, les organes génitaux, l'anus, les extrémités extérieures et inférieures, tout y était dans l'ordre naturel, et d'une belle conformation.

“ Mais en passant à l'examen de la tête, on voyait qu'elle était double dans sa partie antérieure, et simple dans sa partie postérieure. L'os frontal et les pariétaux manquaient en totalité, l'occipital n'existait qu'à sa base ; il était recouvert par le derme chevelu, qui présentait des plis transversalement, indiquant une pression de haut en bas et d'avant en arrière. Le cerveau manquait complètement, et l'œil apercevait les saillies osseuses de la base du crâne. La crainte de nuire à l'état de conservation du sujet m'a fait négliger de m'assurer de la présence du cervelet et de la protubérance annulaire.

“ En examinant la partie antérieure de la tête, on trouve, en haut et sur la ligne médiane, un œil du volume d'un œil d'adulte, voilé par une teinte foncée, due à du sang épanché, plus bas une grande surface convexe et ovale dans le sens vertical du corps, ayant une dépression au centre.

“ Si l'on examine le côté, de la tête on trouve à droite et à gauche les mêmes objets c'est-à-dire, un nez, un bec de lièvre, une bouche, un menton, en haut et plus en dehors l'œil, et plus en arrière l'oreille. Si regardant

un des côtés de la tête, on voile le côté opposé en tirant une ligne verticale qui, partant de l'œil moyen, diviserait en deux moitiés la surface convexe pour venir tomber entre les deux mentons, on voit alors se dessiner la joue qui correspond au côté que l'on examine. Le volume de l'œil moyen, ses deux angles qui ont la forme de l'angle interne, ces deux faces accolées par leur côté opposé, tout faisait soupçonner que l'œil moyen n'était que la réunion de deux yeux; ayant mis le sujet dans l'alcool pour en assurer la conservation, l'action stimulante de ce liquide a mis en mouvement le sang épanché qui est venu se fixer sous la forme d'un cercle à la circonférence, laissant le centre de l'œil à découvert: ce qui permet de voir aujourd'hui les deux iris en contact sous la même paupière.

" Pour me résumer, on trouve :

- " 1o Une seule cavité du crâne ;
 - " 2o Absence du frontal, des pariétaux, et des trois quarts supérieurs de l'occipital ;
 - " 3o Absence du cerveau ;
 - " 4o Quatre yeux dont les deux moyens réunis.
 - " 5o Deux nez ;
 - " 6o Deux becs de lièvre, simple à droite et double à gauche ;
 - " 7o Deux bouches ;
 - " 8o Deux mentons ;
 - " 9o Quatre joues ; { les deux moyennes réunies, sans sillon longitudinal,
 - " 10 Deux oreilles. { dinal, n'ayant qu'une dépression au centre.
- " La partie postérieure de la tête est simple, et n'offre rien de particulier à considérer.
- " Les cris de cet enfant étaient forts et graves dans le larynx et l'arrière bouche, ils perdaient de leur intensité en arrivant dans la cavité buccale. L'air expiré s'écoulant au dehors avec une grande facilité, mettait à peine en mouvement les mucosités qui se trouvaient sur les deux bouches.
- " Les yeux, à demi ouverts, paraissaient sensibles à la lumière.
- " Ce phénomène a vécu vingt-six heures."—*L'union Médicale*.

FELT AND CHAMOIS LEATHER PLASTERS.

MESSRS. WRIGHT and EWING have introduced a material which is likely to be valuable to patients requiring plasters for bad sores. It may also be useful for other purposes. It consists of a kind of felt, more soft in its texture than that which is used for hats, and is covered on one or both sides with chamois leather. In either case, it appears to be an application likely to prove serviceable. It may be used for removing pressure from any particular spot, by cutting a hole in the plaster at the part affected.—*London Pharmaceutical Journal*.

Canada Medical Journal.

MONTREAL: JANUARY, 1853.

NOTICE.

If the subscribers to this Journal are desirous that it should be continued—all who have not yet paid their subscriptions for the past year, are particularly requested to do so before the next issue on the 1st February. We would call their attention to the following from the *St. John's News*:

CANADA MEDICAL JOURNAL.—We have to acknowledge the receipt of No. 10, of this ably conducted Journal, and on perusal, find that it contains the usual amount of matter, interesting as well to the general reader, as to the members of the medical profession. One thing, however, we regret to observe, and that is, in a notice to the subscribers to the Journal, the editors find themselves obliged to relinquish the publication of the Journal after the completion of the first volume, should the subscriptions be not all paid up. Every credit is due to the editors for so ably conducting a journal without any remuneration whatever; and as their time and attention is given to it in this way, surely there are members enough of the profession, and others too, who ought to subscribe and pay enough for printing and circulating so interesting a journal. Since the editors commenced the publication of the Medical Journal, they have, without exception, been assailed by the whole newspaper press of the country, and we cannot for a moment be permitted to terminate their labors for a salary of ten shillings per annum is not paid by the Legislature of the Province of Canada to the Medical Journal should cease to be published for the benefit of the members of the medical profession, and we trust they will come forward, in inducing the editors to “go on and undertake.”

Although we have only had time to glance over the Report of Dr. Wolfred Nelson, on the discipline, management, and expenditure of the several Prisons in the Lower Province, printed by order of the Legislative Assembly, we are satisfied the learned Dr. has entered upon the duties of his responsible office, with every desire to do full justice to the important trust confided to him. For the purpose of eliciting all the information possible, he submitted a series of 62 questions to the Sheriffs, &c., which, together with the replies thereto, are worthy of public and *administrative* notice. The expenditure of some of the jails seems over large and not to have been incurred on any fixed plan or system—hence, articles appear to have been often purchased by dribblets—sometimes in one shop—sometimes in another, and always at *retail* prices. The expenses incurred in the jail, in this (the Montreal) district amounts to a very large sum. The amount for the last year is put down at £3498 17s. 5d., and this for the care of 1612 (answer to question 4) prisoners. While at the Quebec jail, the amount expended for 1300 prisoners, including the 200 sailors mentioned at the foot of the statistical table, is only £1400. Certainly a very great difference in favor of this latter, which would appear to be a well conducted and well managed institution.

The learned Dr. has given his views on prison matters generally—which are not only the result of personal observation, but founded on the principles inculcated by some of the most celebrated writers on Prisons and Penitentiaries. He has also supported his positions by the opinions of some of the most celebrated judicial characters in England, as well as from the reports of several committees of the Houses of Lords and Commons. While strenuously advocating the necessity of punishing offenders against the Laws, he would wish to reform them—to elevate them in their own estimation, and convince them it will be their own fault if they do not ultimately gain a respectable name and standing. In furtherance of these humane sentiments, he suggests that discharged prisoners should not, as hitherto, be scouted and banished from society, but that they should meet with a kind reception, and be given a fair chance to lead a better life. The Dr. is decidedly in favour of the “separate and silent system,” and that all prisoners should be made to work, so that they might acquire industrious habits, as well as contribute towards defraying the expenses of their maintenance in jail.

In a future number we may enter more at length in the consideration of this excellent and important Report, especially in regard to all that relates to hygienic and salutary measures, to which the Dr. has

devoted much attention and upon which he offers many remarks worthy of especial notice.

Dr. Marsden, of Quebec, has been at much trouble to enquire into the statistics of the visitations of Cholera to that city, and has lately published the result of his labors, part of which we copy. It is extremely gratifying to find, that in each year (five in number) of its reappearance, the number of cases have considerably diminished, and although we agree with Doctor Marsden, that "the *exciting, propagating and maturing* causes" of the disease, do still exist in our sister city, as in most of our other cities, still from the annual diminution in the number of deaths from this disease, as shown in the annexed tables, we are inclined to believe, Quebec is fast progressing in the remedying of these serious evils.

"At the time cholera broke out among us, nearly 150 vessels had arrived from sea, within the short space of 48 hours; and a migratory population of at least 5,000 souls was thrown among the inhabitants, which would swell the population of the city to nearly 50,000, including its ordinary residents, seamen, &c. When this is taken into consideration, as well as the season of the year, (autumnal,) we have reason to be thankful to the Giver of all Good, that the visitation was comparatively speaking so light. A tolerable idea of the accuracy of this fact may be found, if we compare the number of deaths from cholera, in 1852, with the number during the first six weeks of the appearance of the disease in 1832 and 1834, respectively.

From the first report of cholera in

1832,	from the 9th June to 20th July, 42 days,...	1641.
1834,	" 7th July to 17th Aug., "	1230.
1852,	" 28th Sept. to 9th Nov. "	145.

On one day in 1832, June 15th, the number of deaths was 143, which is only two less than during the whole of the past season. The

of deaths in any one week was from 803! In 1834 the greatest number which happened on the 21st of July, and the week in the same year was 287, being

The greatest number of deaths in 1852 was on the 18th as also on the 19th, the week from the 16th to the 22nd of July the number of deaths was 48.

This city has now been visited by Asiatic Cholera on five different occasions ; and the following table will show that each successive visitation has been much less malignant and fatal than the previous one. In round numbers the following is as correct a statement as it is possible to obtain, and the figures are rather below than above the mark :

Deaths from cholera in 1832.....	3,000
“ “ “ 1834.....	2,500
“ “ “ 1849.....	1,180
“ “ “ 1851.....	280
“ “ “ 1852.....	145
* * * * *	

The first case of Cholera this year, was a man named McKnight who had been working on board the ship *Advance*, from New York. It communicated to six other persons, in rapid succession, living in the same lodging house in Champlain Street, and among them were two sailors from the said vessel. Of these seven cases *five died*. It then continued to spread to different parts of the city.

The disease seems now to be fairly located on this continent ; and the probability is, that it will not totally disappear for several years. With our present facilities of rapid transit, it is probable that it will be found, at one season of the year in the South, or West, and at another, in the North or East, usually following the most frequented lines of travel ; although it may occasionally diverge to the right or to the left by way of observing its independantly erratic character.

That this part of British America will ever be visited by Asiatic Cholera in winter, is most improbable ; excepting in isolated cases, from infection ; but even in summer, I am of opinion that its progress may be still further stayed, if not totally arrested by the adoption of judicious and efficent sanitary precautions ; and, at a comparatively trifling cost. It is not my present intention to enter into details, but I will briefly refer to broad principles. Although the *originating* causes of cholera, do not exist here, any more than those of other pestilential disorders, that have sprung and spread from the East ; yet the *exciting* and *propogating* and *maturing* causes are present ; as, defective sewerage, drainage, water and ventillation. All these however are in course of improvement.

Among the most efficient preventive means, *prompt attention to the premonitory symptoms of cholera*, and foremost amongst these are diarrhoea.

From my own experience, in this city, during five distinct epochs diarrhoea has been an invariably premonitory symptom ; and all writers on the subject admit, that it always precedes cholera, for a longer

or shorter period. Dr. Kirk, of Greenock, who has perhaps devoted as much time to the investigation of facts connected with this disease as any other medical writer, gives the result of 8,000 consecutive cases every one of which he states, was preceded by diarrhœa of greater or less duration, extending over a period of from five or six hours to twenty-one days!—and this opinion and statement are participated in and confirmed by the first physicians of the metropolitan cities of Europe and America,—*when if diarrhœa does not precede cholera, it is an exceptional case to a very broad general rule.*

Such being the case, I will make a brief but apposite extract from a letter of Dr. Kirk's to the Right Honorable the Lords of the Privy Council. "I obtained," he says, "at Tranent, near Edinburgh, obscure glimpses of a truth, which I have subsequently been able to confirm here, to the satisfaction of the most sceptical,—that cholera *uniformly* commences in common Diarrhœa; and I reasoned that, if we could fall upon a plan of tracing *nationally, and with absolute accuracy*, all cases of this Diarrhœa, we would put a stop to the disease; as this Diarrhœa is extremely manageable and curable. *In this way, by crushing the cœcæ, we would put a stop to the destruction of the devouring fly,—to its growth and existence.*"

I will conclude this notice by remarking, that some persons have blamed us, and questioned the propriety of our not publishing daily reports of Cholera during its existence. Knowing from sad experience that one of the most powerful and fatal predisposing causes of Cholera, is fear. I have used all the influence I possess, in preventing any such publication; and the results of the last two visitations have amply re-

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FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.443
1 Centimètre.	4½ Lines.	0	0	4.433
1 Décimètre.	3 Inches 8 Lines.	0	3	8.330
1 Mètre.	3 Feet 1 Inch.	3	0	11.296
Id Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	3 Centimètres.	27		072
1 Foot.	32 Centimètres.	324		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		399
The English Foot.	30 Centimètres.	304		794
The Yard. (3 Feet.)	91 Centimètres.	914		383

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	grs.	grs.
1 Centigramme.	½ Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	3 Ounces 2 Gros.	0	3	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	35.15
Id Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 centigrammes.	0 Grammes			033
1 Gros.	Grammes	3			82
1 Ounce.	30 Grammes.	30			59
1 Pound.	500 Grammes.	489			50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 39.370788 inches. 3.280899 feet. 1.093633 yard.
Décimètre, 1-10th of a mètre	{ 3.937079 inches.
Centimètre, 1-100th of a mètre	{ 0.393708 inch.
Millimètre, of a 1000th mètre	{ 0.03937 inch.
Measures of Weight.	
Kilogramme, weight of one cubic decimètre of water of the temperature of 39° 12' Fahr.	{ 2.6803 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5438 grains troy. 0.9719 scruples.
Décigramme, 1-10,000th of a kilogramme	{ 0.032 ounce troy.
Centigramme, 1-100,000th	{ 1.5438 grain troy. 0.1543 grain troy.

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No. 12.

ORIGINAL COMMUNICATIONS.

ART. LXII.—*Observations on penetrating Wounds of Large Joints.*

By JOHN JARRON, Surgeon, Dunnville.

There are few axioms in Surgery so generally admitted as the dangerous consequences liable to follow operations in which the cavities of the large joints are laid open, or otherwise trifling incised wounds, which divide their capsules and allow the synovial fluid to escape. It is not my intention to enquire into the cause of these serious consequences, whether they are the result of even a slight injury to a peculiarly irritable membrane, or of the admission of the atmospheric air into a shut sack on which it acts as a foreign body, exciting the most acute inflammation and its results on tissues and in structures where these are most destructive; the facts are so generally admitted, though medical literature, and the observations of every practical surgeon, afford exceptions in which extensive openings into large joints occur without serious results, that the course of the inflammation and its effects, both on the structure of the joint and on the general constitution are most important, and the treatment thereof worthy of attentive consideration.

In Rankin's abstract of the Medical Sciences, No. 14, is a notice of a paper by Mr. Gay, "on the treatment of diseased joints by free incisions," on which the editor makes the following observations. "Mr. Gay has attempted, in our opinion, a very salutary reform in the method of treating diseased joints, in a valuable paper read before the Medical Society. Mr. Gay commences his paper by observing, that to the present time there was no department of Surgery in which the powers of art have been so comparatively feeble as when applied to the relief of those diseases of the joints which, from their results, might be termed

destructive. Hence, let the articular surfaces of the joint be bereft of their cartilages, a sinus or two be formed around it, and the health of the patient show symptoms of exhaustion, and the joint, and probably the whole limb is doomed to amputation."

Mr. Gay's observations are directed to diseased joints, in which, from some general or internal cause, the structures thereof have become affected, and inflammation and its consequences are the result; mine will be confined to the consequences of an external wound, and where the peculiar diathesis giving rise to the complicated and often incurable change of structure in what is usually termed diseased joints, is not to be looked for, and by the absence of which the ultimate result of the cases will be materially affected.

In this country, where the use of carpenter's and cooper's tools are universal in the new settlement, penetrating wounds of the knee joint are of frequent occurrence. They are often so slight as to excite little notice at the time; a bloody rag or a leaf of tobacco is applied, and the man will go about his work as if nothing had happened; in a week or ten days inflammatory symptoms will come on, but the hope that a few days rest will produce a cure, the difficulty of obtaining medical advice from a distance, and the state of the roads lead to the *vis medicatrix naturæ* being taxed to the utmost extent. I have met with a number of such cases where the preventing of inflammation was out of the question, and my attention could only be directed to the moderating of that already set up, lessening its effects on the constitution, and watching the course of nature in remedying the injury.

The pain in the joint and the constitutional suffering are always excessive; the joint and even the whole limb are often much distended and tender to the touch; the least motion of them, or even of the body, can scarcely be borne, the patient being often in dread of any one touching the bed or even walking across the floor. In the cases that I have seen at an early period, I have seldom found symptoms of acute phlegmenous inflammation; or the patients in such a state that free general or local bleeding could be borne, and the marks of incipient suppuration would soon show themselves.

The wound is generally found to be small, occasionally entirely closed; at others with its edges angry looking and discharging synovia that soon becomes mixed with pus globules. Fluctuation in the joint becomes distinct—the fluid distending the *Bursæ*, particularly the upper one, and pressure of the flat hand over it will be conveyed to every point of the joint. A free discharge of synovia mixed with pus, at last takes place, either from the original wound, or from an abscess about the lower part of the joint—with this the distention of the joint, the pain

and the constitutional symptoms will be greatly lessened, and so long as a free discharge continues, the patient will seem to improve. By and by the discharge will decrease, the abscess will appear to heal, when the joint will again become distended, attended by the previous pain and constitutional affection, only to be relieved by the formation and discharge of new abscesses evidently communicating with the cavity of the joint.

This state of things may continue for many months, and three or four abscesses may be open and discharging at the same time. Hectic fever will show itself, and the general constitutional symptoms will vary with the state of the joint, being always worst when inflammation and distention are present, and the abscesses cease to discharge freely. The ultimate result of this state is an ankylosis of the joint, by which the motion of it is lost, and the cavity becomes in a great measure obliterated. This will be indicated as coming on by the fixture of the patella, and the joint being less and less distended previous to the bursting of new abscesses, the pain and the constitutional symptoms becoming gradually less.

I have now a case under treatment that well illustrates the course of such affections. In it, the injury was at first overlooked, the man continued at his daily employment for ten days; then the inflammation appeared after the wound had healed;—it was days after this that I first saw him, when I found the joint distended and very painful; the surface red and shining, with a good deal of swelling on the thigh; the constitutional symptoms were high, but the pulse was soft and the skin rather moist than otherwise.

I attempted to check the inflammation, and, if possible, to bring about a cure by resolution—pushing local bleeding and calomel and opium as far as practicable, but ptyalism was not induced, nor were the local and constitutional symptoms much mitigated—fluctuation in the joint became more deadened—at last the original wound burst open, and a free discharge of synovia and pus took place with almost immediate relief. This discharge continued for a time, then gradually lessened, when the knee again inflamed and became distended, abscess pointed at the lower and of the fibula, was opened, and dis- 11ed, and the joint again enlarged to burst. The cicatrix of the original ischarge was direct and free. The and the integuments adhering more joint; flexion and extension were abated. A distinct fluctuation was

present at one or two points, but that general fluctuation, indicative of an uninterrupted distention of the whole cavity of the joint was gone.

Such, I believe to be the general course of these cases when supuration in the joint has once set in. The extent of the local affection and the constitutional symptoms will vary in different cases, and may be protracted for months or even years.

I have seen many cases, some of them most severe and protracted in such situations, that little medical aid could be given to them, further than directing a general course of treatment to be followed according to the means within the reach of the patients. In some of these the constitutional symptoms have been so alarming, that I have regretted that I had not an opportunity of watching them more closely, in order to resort to amputation at a favourable period ; but I have now so often seen the most hopeless cases recover, that I would be slow indeed in resorting to such a step, and only to save the constitution from the effects of a lingering and exhausting disease, but the tendency of which was the resolution in a certain way, if the patient could be supported under the effects of it. The results of such cases in the country, with all the wants and inconveniences to which even the labouring classes are subject, is very different from that in even the best regulated Hospitals, and limbs will be saved in the former case that no one would attempt to do in the latter.

Such being nature's mode in remedying this accident, we can only arrive at a just conclusion as to the mode in which we can assist her by an inquiry into the character of the tissues and structures involved in disease, and the effects of inflammation on either or all of them.

Joints are shut sacks and their synovial membrane lines their capsules and the ends of the bones, which glide smoothly in immediate contact with each other. When this membrane becomes inflamed, we don't find the same tendency to adhesion, by the immediate effusion of lymph and its organization, as in serous membrane generally, and I am aware of no fact to show that such a process ever takes place. The effects of its inflammation seems more to resemble that of the mucous membranes of open cavities ; its natural secretion becoming increased in quantity and changed in quality, and in a little time pus would seem to be secreted or effused from its whole surface, which ultimately becomes covered with granulations by which the natural character of the secreting surface is lost, and it is brought into such a state that its opposite points only require contact and rest to adhere, like the granulating surface of an open wound. I have had no opportunity of examining these joints while the process of cure was going on, or even the change

effected in them by complete ankylosis, so that my conjectures are the result of a careful observation of symptoms and their analogy to what takes place in other structures, but may be sufficient to guide us in a rational course of treatment.

The excessive pain in the joint, its swelling, and that of the limb generally, as well as the constitutional symptoms, would seem in a great measure to be the result of the pressure of fluid in an inflamed cavity, surrounded by structures more unyielding than any fascia, the effects of which, in similar cases, are daily seen. Ulceration of the cartilages and extensive caries of the ends of the bones seldom occur, these are often the effect of the exposure of such structures in the cavity of suppurating wounds, but when produced by such causes, are to be looked on in a different light from diseased bones and joints, where the inflammation and abscesses take place in consequence of a primary disease in them, and consequent change of structure; and if, as Mr. Gay distinctly points out, the exfoliation and discharges from such diseased structures, and their effects on the joints and on the constitution are lessened, and the curative process of nature forwarded by free incisions into the cavities of the joints, how much more are we called upon, in cases of suppurating joints from local injuries, to make free openings for the discharge of the

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thrashing machine which was thickly set with spikes. The cellular substance of the back part of the arm was torn off for about three inches above and below the joint, as well as the muscles on the radial side of the arm—the tendon of the triceps was two thirds gone, and the olecranon grated to a point to which the remaining third adhered—the joint was not opened, but the capsule on the radial side was dissected bare. The limb was placed in a straight position and attempted to be saved. The surface of the wound sloughed, as well as the exposed part of the capsule which laid open the joint. No synovial inflammation took place, and the wound ultimately healed by granulation. The joint was very inadequately covered on account of the original loss of substance—no anchylosis took place, unless at the point of the olecranon, so that it was only fixed by this, the cellular substance.

On two subsequent occasions a compound dislocation of the joint took place by falls, tearing the newly formed parts across and completely exposing the cavity. In both instances the wound closed up readily with little or no appearance of synovial inflammation. Indeed the want of this, and consequent anchylosis is, in my opinion, the cause of the weakness of the joint, which can only be strengthened by such a degree of inflammation as to lead to the agglutination of the opposing ends of the bones.

In the treatment of all penetrating wounds of joints, perfect rest and the relaxation of the limb must be adopted. In those of the knee joint, to which these observations are more particularly directed, these are more requisite, from the character of the joint, and the serious consequences of inflammation. When inflammation has arisen, it must be treated on the usual antiphlogistic system, and pushed to the utmost extent the constitutional symptoms will admit of. So soon as the pulse begins to get soft, the skin moist, and symptoms of suppuration in the joint to show themselves, warm fomentations and poultices will give much more relief than cold applications, and ought instantly to be adopted and applied in the most effective manner. Any discharge from the original wound should be encouraged, and so soon as an abscess points it should be freely opened. I have often, in such cases, cut deep in order to reach an obscure fluctuation, and the consequences have always been beneficial.

I have never cut directly into the knee joint for the purpose of relieving distention, but am now satisfied such a course would be safe and often attended by the best results. The giving way of the original wound in the case mentioned above, prevented me having recourse to it. And the effect of this showed nature's course in remedying the injury. When suppuration, or the effusion of pus into a large joint

like the knee, has once taken place, the formation of anchylosis can seldom be prevented, and in most cases our endeavours are to bring this about. A free incision into the joint will completely relieve the distention, and lessen the local and constitutional irritation, nor will it in any degree interfere with the slight chance of resolution and the preservation of the motion of the joint, as this depends, in all cases, on the extent of the inflammation and suppuration, and not the size of the opening into the joint.

The repeated application of blisters around the joint is most beneficial; they may be commenced so soon as the first inflammatory symptoms subside, and be repeated once or twice a week afterwards, irrespective of any abscess that may continue to discharge.

The constitutional symptoms must be treated on general principles; but towards the latter stage of the disease a free use of quinine and iron will often be necessary.

A small low bed with a firm bottom and mattress must be provided for patients with such an affection of the knee joint. Any apparatus for fixing the limb is out of question; when once inflammation has set in, a single splint under the limb cannot be borne—it must then be placed on a firm pillow, and kept as straight as possible, which will be the more easily done, as this is generally the easiest position.

Instead of amputation or the operation of resection for diseased joints, the plan Mr. Gay recommends, is “free and deep incisions made along each side of a joint, so as to lay open its cavity freely, and to allow of any discharges being by any possibility retained within its cavity. They should be made of such a length, and so treated, that they do not heal in the form of sinuses. They should be made, if possible, one on either side of the joint, and in the direction of the long axis of the limb. They should extend into the abscesses in the soft parts so as to lay them open. If sinuses exist, the incisions should be carried through them, if this can be done without departing from a slight curve. If either of the bones be carious or necrosed, the incisions should be carried deeply into such bones, so as to allow the dead particles of the bones to escape. Ligaments which stand in the way of a free discharge from the joint should be cut through. Of course important vessels should be avoided. The wounds should be kept open by pledgets of lint, and free suppuration encouraged.

The constitutional powers have, in each case, rallied immediately after the operation; and the discharges from the joint have altered in character and become healthy, which they in general do in the course of two or three weeks, these become invigorated and improve with the moving joint.”

ART. LXIII.—*Case of Rupture of the Uterus.* By THOMAS CHRISTIE, M. D.

On the morning of the 21st August, 1852, I was summoned to attend Mrs. M—— during her sixth accouchment. Before I had proceeded half way (the distance being 7 miles,) I was met by a second messenger, who urged me to make the greatest haste, as Mrs. M—— was just dying. On my arrival, I ascertained from the midwife (who had been in attendance all night) that the patient had been in labour twenty-four hours; the pains had been regular but not severe; the membranes had ruptured a few hours prior to my arrival; the head had advanced so far as to press on the perinaeum, that just when she expected that another pain would have effected delivery, the patient felt something give way, since then the child's head had receded, so that it could not now be felt, and the pains were suspended, or to use the midwife's own words, were bearing the wrong way.

Suspecting the nature of the case, I immediately visited the patient, and found her in bed, with her shoulders raised by an attendant, her face was pale and ghastly, with an expression of intense suffering and anxiety—pulse rapid and feeble, respiration difficult. The expulsive efforts had entirely ceased. I at once resorted to an examination, and found a large rupture in the front of the uterus, through which the body of the child had escaped into the cavity of the abdomen, the head still remaining in the cavity of the uterus. Passing on my hand through the laceration, after a little search, I succeeded in laying hold of one of the feet, and effected version and delivery without any difficulty, the pelvis being capacious, and the soft parts well relaxed. The child was dead. After delivery she was attacked with severe vomiting, I administered a large dose of laudanum, and waited beside her for three hours, expecting that she would die. At the end of that time, however, she appeared to be better. I then left her, prescribing Tr. Op. M. 30, three times a day.

August 22. Much stronger, has dozed almost constantly. Prescribed Tr. Op. M. 20, three times a day.

August 24. I found her much worse. The pulse had taken on the inflammatory character—tongue coated, abdomen extremely tender, and much distended. I bled her largely, and ordered eight grains of calomel and one of opium to be given three times a day, and a large blister to be applied to the abdomen.

August 25. Still worse; pulse 130, tongue brown and coated, countenance anxious, and pinched, hiccup and vomiting. Hot fomentations to the abdomen, and calomel and opium every four hours.

August 26. Considerably better, pulse 110, abdomen less tender, tongue moister, pains very rare. I now omitted the calomel, but continued the opium. From this time she gradually recovered without any untoward occurrence.

Lachute, Canada East.

ART. LXIV.—*On the use of the Persesqui-nitrate of Iron in Leprosy.*

By W. KERR, M. D., Galt.

It is with considerable reluctance I lay before the readers of this Journal this communication in its present shape, but not possessing any other means of obtaining my object, I trust you and your readers will bear with me while I explain my views.

In the first number of your Journal are given two interesting cases of Leprosy in New Brunawick, and you invite suggestions respecting this fearful and loathsome complaint. Mr. Wilson on Leprosy, as known to the Hindoos, in the first volume of the Transactions of the Calcutta Medical and Physical Society says: "the known connexion between the stomach and skin will dispose us to concur generally in

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of twelve months to twenty one years, was thus cured. Several physicians of eminence had been consulted without benefit, and the seat of the affliction being the face and hands, she had previously been nearly excluded from society. For additional information on this subject, I refer to the Monthly Journal of Medical Science for May, 1848. Leprosy is a chronic disease, and it is certainly in chronic diseases that the persesqui-nitrate is most efficacious. In diarrhœa of long standing its utility is acknowledged over the whole world, and in ague, especially in chronic, its use, as I learn from medical friends, is rapidly extending in this part of the country. When I name ague, a disease decidedly endemic, I possibly afford another presumption in favour of the persesqui-nitrate in leprosy, also an endemic disease.

Many may think that I am unreasonably fond of the medicine now suggested, but I have long had experience of its powers, and am gratified to find that my statements regarding its utility have been confirmed by others. For chronic diarrhœa, I may appeal to the general voice of the profession, and though time has not elapsed since the publication of my paper in the Monthly Journal of Medical Science for October, 1851, to have independent testimony through the medium of the press, yet I have heard, and seen enough to convince me, that its judicious use in ague (*i. e.* with quinine when there are paroxysms, and by itself when there are none,) will render this disease far more certainly curable than it is at present. Persesqui-nitrate of iron must be admitted to be a potent medicine, in every sense of the word, in those diseases to which it is suited. Dr. Graves in his Clinical Medicine states, that with it he has easily and speedily cured cases of chronic diarrhœa which had for years resisted every other medicine. Yet its ordinary dose contains only about 0.4 of a grain of metallic iron, 0.3 of nitrogen, and 1.1 of oxygen, making a total of 1.8 of anhydrous persesqui-nitrate. The quantity of iron is so small, that we are reduced to the conclusion, either that persesqui-nitrate, as such, is possessed of great power in disease, or that the elements of its acid in assimilating with the system, afford a stimulus, or supply a deficiency in the various maladies in which the medicine is beneficial.

I now venture to recommend the persesqui-nitrate of iron for leprosy, I trust for reasons which will not appear inadequate or ill founded. I cannot allow myself to hope that in the advanced stage of ulceration, at least unaided by other remedies, it will be productive of much benefit, but if, during the years which precede this stage, it should prove to be a medicine capable of controlling or curing the disease, a great step will be gained. Medical men residing in the districts where leprosy

is endemic will greatly oblige me by giving the medicine a fair trial, and reporting their experience.*

I am, gentlemen,

Your obedient servant,

WM. KERR.

Rosehill House, Galt, 28th December, 1852.

Having learned from several medical friends that they had failed in making the persesqui-nitrate of iron, I take this opportunity of stating the mode of preparation, I trust with sufficient fullness and perspicuity.

Mix three fluid ounces of nitric acid with fifteen ounces of water in an earthenware or glass vessel. Put into this one ounce of iron-wire (that known by the name of No. 18) broken into several pieces, and so twisted as to extend into every portion of the liquid. Let the temperature of the apartment, if possible, be not lower than 55° or higher than 75° . In twelve hours the solution will be completed, when the liquid is to be poured off the residue of the wire, and one hundred and two ounces of water added, thus increasing the solution to one hundred and twenty ounces. The liquid ought to have the color of dark brandy, be perfectly transparent, and with carbonate of soda give a red precipitate unmixed with green. A greenish tint in the precipitate indicates that the temperature of the liquid was not sufficiently high while the solution was going on, or that the liquid has been allowed to remain too long on the residue of the iron. A turbid solution or a red magma indicates too high a temperature while the wire was being dissolved. The large quantity of water finally added is for the purpose of preserving the solution transparent a reasonable length of time in warm weather.

If a smaller quantity of the persesqui-nitrate is to be made, say one third, then the dilute acid in which the iron is to be dissolved ought to be stronger, otherwise owing to its smaller bulk, its temperature will not rise sufficiently high to peroxidise the metal. Not to leave free acid, the wire ought to extend into every portion of the liquid, and

*Jackson, in his account of Morocco, says, "that leprosy is very prevalent, and that on any change of weather, and particularly if the sky be overcast, and the air damp, lepers will be seen sitting round a fire warming their bones, as they term it, for they ache all over till the weather resumes its wonted salubrity." Similar conditions of the system will give rise to similar symptoms; no person acquainted with ague can fail to recognize in the above a description as applicable to ague as to leprosy, and every one acquainted with the use of the persesqui-nitrate in the former disease must know that this medicine easily removes the disposition to the extraordinary chillness now described.

ought to be in slight excess. Saturation is known by the dark, rich color of the solution. The noxious fumes of nitrous acid evolved during the process will be altogether avoided by placing a large receiver over the vessel in which the solution goes on; the lower edge of the receiver being immersed in water.

Dose. A tea-spoonful three times a day in half a tea-cupful of sweetened water, about an hour before meals.

ART. LXV.—*On the arrest of Hæmorrhage from bleeding arteries.*

By S. J. STRATFORD, M.R.C.S., Esq., Toronto.

BLEEDING from a divided artery, whenever that vessel is of considerable size, is generally attended with great hæmorrhage, and the speedy arrest of the bleeding is a point of absolute necessity to the life, and safety of the patient. The means which nature takes to stop hæmorrhage from bleeding arteries, after a complete solution of continuity, is by the simple retraction or contraction of the vessel, this influence is exerted by the middle or muscular coat, which alone is possessed of contractile properties, in this coat we find a layer of annular fibres, possessing no small resemblance to that which exists in the muscular coat of the alimentary canal. The contraction of these circular fibres, are doubtless one of the means by which bleeding is arrested in the living body, and this in a vessel of moderate size, and distant from the heart, may occasionally exert a powerful influence, and be sufficient for the end for which it was designed.

The second mode adopted by nature, appears to be a combination of the contractile influence of the middle coat, with violent extension of the outer coat; a layer of yellow elastic tissue, which is thick in proportion to the size of the arteries. In this tissue exists the simple elasticity of the arterial walls—this is a purely physical property, intended in a great degree to preserve the calibre of the vessel, and facilitate the transmission of the blood along its course. The violent extension of this fibrous layer, destroys this natural elasticity by separating and deranging the fibres of the yellow elastic tissue, the action of these elastic fibres was intended to operate on the transverse, not on the longitudinal calibre of the vessel, and by stretching and dividing these fibres, we destroy the natural elasticity of the part. The walls of the vessel approach at all points upon longitudinal extension, if this is moderate, the elasticity of the vessel restores it to its natural size; but if the structure of the yellow fibrous element has experienced a certain amount of separation, the tone of the vessel appears to have

been destroyed, and upon laceration of the artery, the elastic property ceases, the fibrous walls of the artery remain collapsed, it fails to resume its natural position, while the mouth of the bleeding vessel remains closed; and this, with the inner and middle coats of the vessel, which are usually torn for some lines above the opening in the fibrous coat, their shrinking are retracted into the canal, forming a kind of *cul de sac* or valve—a clot of blood forms in the vessel and subsequent inflammation, and plastic exudation result in the torn coats of the vessel, and by these means, the sides of the closed mouth of the artery become united to each other, and the bleeding is effectually restrained. The canal of the artery itself is afterwards converted into an impervious structure up to its next lateral branch.—This is the means adopted by nature in closing the navel strings of animals. Farriers and Gelders take advantage of the process to restrain bleeding in their operations upon animals. In surgery we often see similar phenomena exhibited, for in the laceration of parts, even the largest blood vessels do not always bleed—a remarkable example is related by Cheselden, in which the arm was torn from the body of a miller, without any Hæmorrhage occurring from the axillary artery. Surgeons have lately revived a practice which operates upon a some-

on is as old as Galen, still practice by the French sur- ascribed by them under the rtery by means of a pair of of the vessel with a second h the soft parts—the arte- l the end is torn off. The nly arrested. The effects ewhat similar to those I many cases would doubt- but such is not invariably diseased, or the amount of a blood be deficient, then eded, or totally prevented, sult.

of hæmorrhage, which ap- ture, is the use of styptics; om time immemorial. In he coagulated blood merely d in the extremities of the age,—while in other cases, luence of certain chemical

means acting upon the albumen and fibrine of the blood or on the gelatine of the living tissues ; one of the principal of these, and will serve for an example, is Tannic acid. The astringent effect is here the result of an insoluble tannate of gelatine formed upon the superficial structures of the tissues, the consequence of which is a corrugation of the albuminous compounds, by which means the mouths of the bleeding vessels are closed, and hæmorrhage impeded or prevented. It must be sufficiently obvious that so comparatively trifling an influence can have but little power over the larger arteries, so as to arrest active hæmorrhage from their patulous extremities ; in the smaller vessels it may sometimes be useful, but cannot be trusted with any degree of confidence, whenever any of the main arteries are wounded. A variety, however, of this description of agent has been employed for ages. It is the actual cautery, and in some cases of secondary hæmorrhage, it has doubtless been judiciously employed, and often with remarkable success. It consists in the application of a heated iron, to the mouth of the bleeding vessels, the result is an immediate coagulation of the blood, and contraction of the fibrous elements, which is soon followed by the inflammatory process, whereby plastic exudation is thrown out, this unites the mouths of the blood-vessels and arrests the hæmorrhage. Such may be occasionally employed with advantage, when the vessels are small, but when the bleeding occurs from larger arteries, this method would in all probability be impotent, and the plan recommended by the younger Cline, would alone seem to deserve attention, this consists in laying open the wound so as to introduce a canula into the open mouth of the bleeding vessel, until we arrive at a healthy part of the artery, when a hot iron is to be introduced through the canula and with it the coats of the artery are to be burnt, so as to produce coagulation of the blood puckering of the arterial coats, as well as inflammation and adhesion of the sides of the vessel. When cauterization is used, it not unfrequently happens that the slough formed by the heated iron, separates too quickly before the wounded artery is healed, and bleeding again returns, making it necessary to repeat the process. Again, the pain, the terror to the mind of the patient, and the excessive inflammation, and suppuration that may occur, are sufficient reasons against its general employment in all cases of active hæmorrhage. The active influence produced by all these means, in an inflammatory condition, and this, in all cases of quick adhesion, it is our particular desire to prevent, as it would impede or derange the process, for we should particularly remark, that union by the first intention, is a natural and healthy process, not a

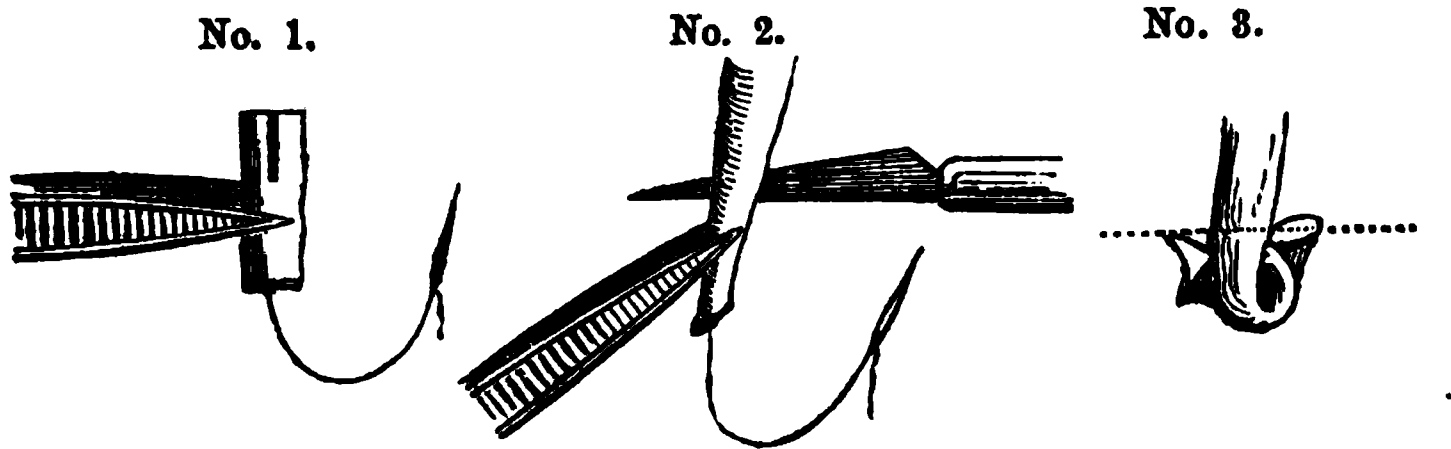
diseased action or condition of the part, and not dependent upon the processes of inflammation for its accomplishment.

The process now most generally adopted by surgeons in the arrest of active hæmorrhage from the larger blood-vessels, is by means of the ligature—doubtless it is the most simple that has yet been advocated, and it commends itself to common sense, as a most plain and certain means. Still, nevertheless, its employment is open to serious objections in many cases. To say the least, the ligature is always a foreign body—it may become a source of irritation and inflammation,—at all times it must be a certain injury to the part, and more or less impede the healing of the wound, preventing that quick adhesion it is so particularly our desire to accomplish in simple incised wounds. When the ligature is placed upon the artery in the most approved manner, the inner coats of the artery are cut through by the round ligature, and the compressed fibrous coat excited to inflammatory action, that shall effectually close the vessel, and prevent further bleeding, and this is the happiest result that can be anticipated—but even here a certain amount of irritation and ulceration is necessary to free the ligature from the living vessel, and who can say at what point this shall be arrested; under any circumstances this inflammatory action may be an objection, and in many cases is actually the cause of the formation of matter along the sheath of the blood-vessel, that causes ulceration of all the tissues of the artery—the re-opening of its calibre and secondary hæmorrhage results, which science and nature alike agree it would be most desirable to obviate.

I need not here expatiate upon the accidents that frequently attend upon the use of the ligature, especially when it has been applied without due care and attention. It will suffice to show that secondary hæmorrhage, arising from excessive inflammation (and ulceration of the vessel may occasionally occur—that irritative inflammation) of the vein, may sometimes result from it—while, should the nerves have been included in the ligature, a long train of painful symptoms will be sure to show themselves, presenting all the symptoms of an intense neuralgia, that not unfrequently imbitters the life of the patient; these facts will clearly substantiate the disadvantages of the employment of the ligature as a means of arresting hæmorrhage, and would call for its abandonment, could any other method, free from these objections, be substituted in its place, especially could it be shown, that the new method shall as quickly, surely and permanently arrest the bleeding, without the necessity of producing in any degree irritation or inflammation of the parts—doubtless such a method would be a great desideratum, and I respectfully submit that all these points may be certainly and effectually

secured by the following means, whereby the open extremity of the bleeding artery is effectually closed, and hæmorrhage prevented without the use of the ligature. In a case of amputation for example an assistant seizes the artery, with a tenaculum or forceps, and gently draws it down. The operator takes hold of the vessel, with a pair of forceps transversely across its calibre, a sufficient distance from the wound in it, say upwards of once and a-half the diameter of the vessel, and holds it firmly until the other steps of the operation are accomplished; and this effectually secures the bleeding for the moment.—Having armed a straight needle, rather thicker than the ligature, he passes it laterally through both sides of the artery, and firmly tying its extremity to the vessel, leaves it hanging in readiness to lead the end through the longitudinal cut in the artery; now by means of the forceps he gives the artery a half turn to the point, then taking a lancet shaped knife, he passes it through both walls of the vessel immediately above the forceps, in the centre of the artery, and parallel to its course, the size of the wound in the vessel must be about the diameter of the artery; the armed needle attached to the lower extremity of the vessel, must now be introduced into the wound, and the end of the artery must be drawn through the sides of the vessel, until it is firmly secured in its position; now having removed the forceps and cut out the ligature, the resiliency of the artery quickly retracts into its sheath, and firmly confines the transfixed portion, of the vessel in its new position—by these means the bleeding will be permanently arrested without a chance of further hæmorrhage, did we fear the removal of the portion of the artery drawn through the wound, it would be but necessary to cut a small transverse nick in the artery immediately above its open mouth, which would act as a barb upon the sides of the vessel, and effectually hold it in position under any circumstances, but this we believe to be quite unnecessary to the perfect security of the operation—at all events the presence of any thing like a foreign body is hereby obviated, and not the least impediment offered to the quick union of the incised wound.

The steps, and result of the operation may be fully comprehended by the following diagrams,—



No. 1. The artery held in position and the armed needle attached, ready to be passed through the slit in the vessel.

No. 2. The same turned upon its axis, and the knife passed through it.

No. 3. The extremity of the artery drawn through the wound, and retracted into the soft parts.

When fully comprehended the various steps of the operation are scarcely more complicated than the application of the ligature, to the divided vessel, will doubtless be found equally certain and complete in its effect, and without any fears of producing irritation, or inflammatory action.

A somewhat similar process for the arrest of hæmorrhage, was sometime since proposed by Stilling, but the complexity of its detail, seems to have prevented its introduction into practice. I think however, that the more simplified, and easy operation here recommended, will not be open to such objections—while the plain and desired advantages gained by the proposed method, must address itself to the judgment and common sense of every surgeon.

ART. LXVII.—*Four cases of disease of the Ear producing Cerebral affections, one terminating in death, with remarks.* By HENRY HOWARD, M. R. C. S. L., Surgeon to the Montreal Eye and Ear Institution, Ophthalmic and Aural Surgeon to St. Patrick's Hospital.

So little has been written upon diseases of the ear, and so little are the diseases to which it is subject understood, that every little light that can be thrown upon its pathology is of the greatest importance. Constantly in the habit of seeing children and adults with discharges from the ear, arising from various causes, such as inflammation of the mucous membrane lining the meatus; inflammation from deeper seated structures of the same part; some of them modified from various causes, polypus of the meatus, granulations of the membrana tympani; inflammation of the middle ear, &c., &c., seeing such cases daily, and hearing that the only advice given, is "better be cautious, do not interfere with the discharge or

"syringe your ear with a little soap and water," the surprise is that we do not find more deaf people than we do. That there are very many who lose their lives by diseases of the ear, I have not the slightest doubt although death is often attributed to other causes, either from the ignorance or the knavery of the attending physician. Indeed, any doubt that may have existed heretofore upon this subject has been well cleared up by the pathological researches of Mr. Toynbee, to whom not only the Profession, but society at large, owes the greatest debt of gratitude for the light he has thrown upon the diseases of this important organ.

About six years ago, I was called upon by a widow lady to examine the ear of her son, a fine lad of about ten or eleven years old. She stated that it had been discharging for about twelve months. On examination I found that the whole of the membrana tympani and small bones of the ear were gone, and a small fungous growth filled up the cavity of the middle ear. I told his mother that I considered the case of great importance, that I had no doubt if not interfered with, it would end in death, and that it was possible that such would be the result even under the best directed treatment. She said she would call in a few days and let me know what she would do. She did call, and told me that she had informed *two* of her medical friends what I had said, and their answer was, that "I only wanted to frighten her, that there was not the slightest cause for alarm, that the discharge would wear itself out, and produce no injury." She determined to follow their advice, I bowed and we parted. In less than twelve months the boy died, with *some* affection of his head, which he himself while sensible, attributed to his ear, and to which the mother to this day, if I am rightly informed, attributes his death. He was attended by her two medical friends, from whom I, of course, never will hear the particulars of the case.

Considering the few following cases of peculiar interest, I have chosen them, out of many, for publication :

CASE FIRST.

April 30, 1852, A. H., aged 10, was brought by her mother to the Montreal Eye and Ear Institution, she was a very pretty little girl, with blue eyes, light hair, but of strumous habit. The mother of the child stated that for two years the child had had a discharge from her right ear, but she took little notice of it until lately, as the child *only* complained of deafness but no pain, until within the last four or five weeks. On examining the meatus I found that it was filled up with a small pendulous polypus, which I easily removed with small forceps.

There was a little bleeding which soon ceased, after having cleaned the meatus from all clots of blood, I found that the polypus grew from its superior and posterior portion, near to, but not in connection with the membrana tympani. I also observed that the whole surface of the membrana tympani was covered with granulations. Being in the habit, for some years, of removing these granulations by the daily application of the saturated solution of the acetate of lead, and a compress of either sponge or bit of fine scraped lint, I adopted this treatment with her, and in about five weeks the granulations disappeared, and of course the otorrhea. She came occasionally, however to see me, at which times I examined the ear, watching for granulations, and checking their growth by touching them with a ten or twenty grain solution of the nitrate of silver, by means of a fine camel-hair pencil. For the first two weeks I prescribed for her small doses of quinine, after that I put her upon the cod-liver oil, a tea-spoonful three times a day. On the 19th of August, 1852, the mother called at my surgery stating that her daughter had been playing the evening before, and came in with a pain in her ear from which she suffered severely all night, that the pain was accompanied with high fever and severe delirium. I gave her five grains of calomel to be taken immediately, and half an ounce of sulphate of magnesia, to be taken four hours after, telling the mother to call again in the evening if the child was not better. She called the next morning stating the child was much better. The next time I heard of her she was *dead*. It appeared that I was sent for on the evening of the 22nd, and not being within, Dr. Fenwick visited her, who has kindly furnished me with the following statement:—

At 7 P. M. on Sunday, the 22nd August, I was requested by the father to see his child immediately, as she had taken a fit. Upon entering the room, I found the little girl labouring under the following symptoms:—She was perfectly unconscious, lying on her back, the limbs rigid, arms and legs strongly rotated inwards, the thumbs clasped by the hands, the head was thrown backwards, and she seemed to rest on the occiput and heels, the breathing was short and hurried, pulse was constant moaning, about every two or seized with a convulsive spasm, during the frightfully distorted, on one occasion, the other they were drawn over the teeth and tongue itself seemed like a board, the teeth tongue, so much so, that I was apprehensive the tongue, the eyelids were raised and and inwards. I noticed the pupils were large spasms lasted only a few minutes;

during the interval there was no relaxation of the muscles of the back and extremities, nor did they appear to be affected during the spasms. My treatment consisted in applying mustard sinapisms down the spine and to the calves of the legs; at the same time I ordered leeches to be applied to the back of the ears, and gave a large dose of submuriate with pulv. antimon. I left, determining to return in an hour. About $\frac{1}{2}$ past 8 o'clock I returned with my friend Dr. Jones, the child had been dead nearly three quarters of an hour, I learnt from the parents that she had complained of headache for some days past, had lost her appetite, the bowels did not act, and that morning the mother had given her a dose of castor oil. Dr. Jones recognized the patient as having been under your care for otorrhea.

G. F.

I made every effort to get a post mortem examination in this case but could not succeed. And I regret it the more, because I am perfectly confident, from the various careful examinations I made of the ear while the child was alive, that there was no caries of any of the bones, and perfectly certain, that there was not even perforation of the membrana tympani. Mr. Toynbee has shown by his pathological examinations, that inflammation of the external auditory passage can

purged by the calomel and salts, I continued the same local treatment, and gave him one grain of calomel and half a grain of quinine night and morning. This treatment was continued for ten days, by which time the discharge from both ears had ceased. The only sensible effect of the calomel was slight mercurial fœtor. So much improved was the state of the portio dura, that he could nearly close his eyelids. I then discontinued the treatment and put him upon Cod-liver Oil, a teaspoonful three times a day. He is now a fine healthy boy, hearing well, with a small perforation in the right membrana tympani. the portio dura restored to a healthy state.

CASE THIRD.

O. F. aged 31, received into one of the private Wards of St. Patrick's Hospital on the 30th of November, 1852, stated that for many years he had had a discharge from his right ear, of which he was completely deaf. That for six weeks he had had a discharge from his left ear, and that for the last three, he was suffering from pain in the head, giddiness, loss of appetite, loss of sleep, and was becoming greatly emaciated. On examining his ears I found that the membrana tympani and small bones of both ears were gone, and that there was a small fungous tumour, which bled when touched, in the cavity of the tympanum. I put a seton in the back of his neck, and every day for four weeks, touched the small tumours with a thirty grain solution of nitrate of silver, during which period he took a teaspoonful of Cod-liver Oil three times a day, and daily applied the Biniodide of mercury ointment behind his ears. After the fourth day, I discontinued the use of the nitrate of silver, and substituted the twenty grain solution of sulphate of Alum. The Cod-liver Oil, seton and ointment were continued until the 11th January, when he left with his hearing very much improved, the discharge checked and the tumours removed. All the head symptoms had disappeared after the first two weeks. I recommended him to keep the seton in his neck for three or four months longer. In this case, with the most minute examination, I could discover no caries of the temporal bone.

FOURTH.

Ophthalmic and Aural Ward of St. , 1852, stated that for eight weeks she had had a discharge of matter from her left ear, accompanied with pain which had increased to the head. She was suffering from giddiness, and the whole of her left side down to

her toes. She was quite lame on that side and could exert but very little power of her arm. All these symptoms had increased for a week before she came to me. The moment I saw her, I observed that there was partial ptosis of the left eye-lid. She further stated, that about five weeks previously she left home, and came to Montreal for the purpose of placing herself under my care ; but from some arrangements made by her uncle she was placed under the care of Dr. — who having heard the history of her case, said that all her sufferings was dependant upon suppression of her catamenia, and treated her accordingly, and never took any notice of her ear. Her uncle confirmed this, her statement. On examining the ear, I found there was suppuration of the middle ear with perforation of the membrana tympani, but I could observe no signs of caries. There was slight tenderness over the upper part of the cervical vertebræ. I put a seton in the back of her neck, ordered her saline purgatives, low diet, and to remain quiet in bed. The next day on my finding that she had been well purged, I put her upon one grain of calomel and half a grain of quinine three times a day, and had the biniodide of mercury ointment applied behind her ear and to the temple of the affected side. This treatment, with syringing her ear every day with a twenty grain solution of the sulphate of Alum, I continued regularly for ten days, at the expiration of which time the mercurial fætor was slightly perceptible, and the discharge from the ear ceased. The ptosis, double vision and giddiness disappeared, feeling was restored to the left arm, and in a very great degree to the left leg. In walking about the Ward of the Hospital very little lameness was observable. A fuller diet was then prescribed. I discontinued the use of the syringe, but to keep up the action of the mercury, I ordered one of the pills to be continued at night. Three days afterwards, the thirteenth in Hospital, I was surprised to find her in bed after having passed a very bad night. Her face was flushed, tongue furred, pulse rapid, with constant twitchings in her left arm and leg. A blister was applied at once to the spine the whole length of the cervical and part of the dorsal vertebræ, the calomel pill was discontinued, and I gave her saline purgatives every four hours till she was freely purged. Next morning all these unpleasant symptoms disappeared ; I gave her no more medicine. She left me in a week afterwards perfectly well, with the exception of a slight halt or lameness in the left leg, scarcely perceptible to a stranger. I recommended her keeping the seton in for three or four months, and to let me know if she had any return of the disease. A month has passed since and as I have not
1 from her, I presume that she still continues to improve.

ART. LXVI.—*Successful Treatment of Varicosities and Ligatures.* by J. C. BUTLER, M. D., D

Mr. Frederick Chambers, of the Township of 1 years, of a scrofulous diathesis, consulted me 80th condition of the veins of the left leg. The patient it had been produced by over muscular exertion previously, from which time it had constantly increased by occasional ulcerations of an obstinate nature. Upon internal and external saphena veins, together with presented the appearance of a complete mesh work of on placing the thumb upon the principal vein a patient reclining in the recumbent posture, and region suddenly in the erect position, a sensible regression was apparent, producing a sensation which was as being "very disagreeable." I recommended only means of effecting a medical cure. According to the presence of Dr. S. L'Hommedien, of Cincinnati by my student, Mr. H. N. Curtis, I performed the Common brass pins were introduced behind the ligatures was then passed tightly round the portion of the integument and a fold of the veins of the cinctured parts. Thirteen pins were thus portions of the veins below the knee and one to a few inches above it. Enjoined quietude and ligature the fifth day after the operation—no constitutional but little swelling of the foot and leg. Applied 1

Sept. 8.—Patient suffered much pain during foot and leg more swollen; Elevated the limb lotion, gave pulv. Doveri Grs. x., and ordered following morning.

11th.—Sloughing of the strangulated parts. tures, and ordered the pulv. Doveri to be repeated

15th.—Several of the pins completely removed process.

25th.—Pins all removed and ulcers presenting

Oct. 7th.—Ulcers all healed, and the appearance improved. Applied a ligature to an enlarged internal malleolus, the only one remaining.

14th.—Was called to visit the patient. Foot swollen and very painful. He had walked yesterday mile and was soon after taken with cold chills, for

head and leg. Took xvi. ʒ blood from the arm, elevated the leg, applied cold water. Ordered Pul. Doveri. Grs. x., combined with Hydrarg. Submur; Grs. vi., every eight hours.

15th.—Patient rested quietly through the night. Redness and extreme sensibility along the internal saphena to the knee. Applied a blister one inch in width from the foot to the knee, over the vein, and repeat powders.

16th.—Less febrile action; the common saphena to the groin somewhat painful and tender to the touch. Applied blisters as before.

17th.—Patient better; leg less swollen. From this time the patient rapidly convalesced. I have seen Mr. Chambers from week to week since then, and have reason to believe him permanently cured. He is pursuing his usual avocations and experiences no inconvenience from the limb whatever.

ART. LX.—*Observations on the Sanatory Institutions of the Hebrews as bearing upon Modern Sanatory Regulations.* By the Rev. ABRAHAM DE SOLA, Lecturer on Hebrew Language and Literature in the University M'Gill College, &c.

(Continued from page 666.)

WE continue our examination of the animals enumerated in the text:

3. אֶרֶבֶת (arnebet) hare, v. 6, "he cheweth the cud, but divideth not the hoof." O. אֶרֶבֶת (arneba). S. J. T. and de R. liebre; G. T. and M. haase; F. lepus; Sept. dasipous; all hare. "From אֶרֶבֶת (arah) to crop, and נִיב (nib) the produce of the ground—the hare—these animals being very remarkable for destroying the fruits of the earth. Bochart who gives this interpretation of the word, excellently defends it by showing from history that hares have at different times desolated the islands Leros, Astypalœa and Carpathus. See his works, vol. ii. 63 and 995."—P. "The hares," says Cuvier, "have a very distinctive character in their superior incisors being double; that is to say, there is another of small size behind each of them."—This is identical with the old Talmudic definition to which we have already referred, on p. 46. Although placed among the *Rodentia* by modern naturalists, it is to be observed that the partial division in its stomach (see Carpenter's Zoology, v. 1, p. 268) would well warrant its classification among the *Ruminantia* where the text places it.

4. חָזִיר (chazir) swine, v. 7. "he divideth the hoof and is cloven footed, yet he cheweth not the cud." T. O. חָזִירָא (chazayra) S. J. T. and de R. puerco; G. T. and M. schwein; B. and F. porcus. "The root means to encompass. As a N., a hog or boar, so called, perhaps, from his round shape when fat, which is his natural state; *Totus teres atque rotundis*."—P. Order *Pachydermata*. We shall have reason to speak of the nature and habits of the swine, when inquiring into the third point of discussion laid down. We now pass on to the birds.*

*In Leviticus, twenty species of unclean birds are enumerated, while Deuteronomy specifies twenty one. We cite the following reconciliation of the apparent contradic-

1. נשר (nesher) eagle, v. 13. T. O. נשרא (nishra) S. J. T. and de R. aguila ; G. T. and M. adler ; B. and F. aguila ; D. L. and G. eagle. "The root means to lacerate, tear in pieces. The eagle species is eminent for rapacity and tearing their prey in pieces, for which purpose they are furnished with beaks or talons remarkably strong."—P. "The assertion of our sages that the eagle has no additional claw, has been attacked, but I, myself, have examined one, found in my native place, and found that it had no such additional claw."—W. The eagle is classed by Cuvier among the *Accipitres* or birds of prey, which are, he says, like the *Carnivora* among quadrupeds. "They are pre-eminent for their strength," adds Carpenter, "and attack not only birds for their prey, but the smaller quadrupeds also, such as the hare, sheep, fawns, roebucks, &c."

2. פרס (peres) ossifrage. T. O. ער (ngar) S. J. T. and de R. azor ; G. T. habicht (hawk or goss hawk, also of the order *Accipitres*) M. beinbrecher and small black eagle ; B. and F. ossifraga. "Peres is a large bird found rather in deserts than inhabited places, and R. Yonah, saith that it is identical with the Arabic *Akab*."—K. The root means to break, hence the remark of the *Critica Sacra* "with strength of beak or talons she breaketh her prey ; *nomen est avis magna quæ desertâ incolit, inquit R. David, ab ungulis fissis dictæ. Alii accipitrem, vel aquilæ genus putant. Alii Gryphum malunt. Ita Septuaginta Chald. & Vulgat. vertunt.*" "As a noun a species of eagle called by the Romans *ossifraga* or *bone breaker*, because he not only devours the flesh, but even breaks and swallows the bones of his prey. Comp. Mic. iii. 8 ; and see Bochart, vol. iii. 186, &c."—P. "According to most of the translators, it means a kind of eagle."—W. Order *Accipitres*, Cuv.

3. עזניה (ngosniyah) ospray ; T. O. עזא (ngasya) S. J. T. esmerejon (martin also the yellow-legged falcon, *Falco Elesalon* Linn. Order *Accipitres*) G. T. fischhaar fischadler (sea eagle) M. schwarzen adler (black eagle) B. *Haliæetus*, (species *aquilæ*). F. *aquilæ* species, a visus perspicacitate (Job 30;29). Crit. Sac. *haliæetus*, a marine eagle, so called from its sharp vision, *quia adversus solis radios in-*

tion from the "Conciliator" of R. Menasseh ben Israel, Mr. E. H. Lindo's translation. "In Siphre (which is adopted by Rashi) it says, in solution of this doubt, that the difference between Leviticus and Deuteronomy consists in the former saying 'ואת הדאח ואת האיה ואת חיה' And the vulture and the kite and their species,' whereas Deuteronomy has it 'ואת האיה ואת חיה למינה'. Here the *raah* is named, which is not in Leviticus ; there is also another difference in Deuteronomy, saying, *dayah* instead of *daah* as in Leviticus, the *yod* being in place of the *aleph* which being considered, it says that 'רעה איה דיה *Raya, Aya, Daya*, are all the same species of bird, but having various appellations from their different properties ; so that there is no difference between the two passages, one only having an additional name, although of the same species. The difference between the words *daah* and *raah* is nothing, for the Hebrew language admits this change of letter. (See note on question, 132.) The learned Aben Ezra says, that *raah* is the denomination of the genus which includes the different birds mentioned, whereby the objection is also answered, for the *raah* mentioned in Deuteronomy, is not a distinct species, but the name of the genus. This author avails himself of what is said of the patriarch Abraham, when, by the command of God, he took 'a young heifer, a goat, a ram, a turtle dove, and pigeon.' The scripture relates that he divided all in two, except the bird called עפר (which is applied to birds generally) and in that place, it is used instead of חיה (a turtle dove,) which was mentioned before. R. Levi Ben Gershon holds that *daah* and *raah* is the same bird which from being sharp sighted and flying quickly, had both names given it in Hebrew, signifying those two properties, *raah* being derived from the verb *raah* 'to see,' and *daah* from the verb *daah* 'to fly,' and Deuteronomy, to avoid error, and for greater perspicuity enumerates both, without, however, adding another species, and he understands *dayah* and *ayah* to be the same, being commonly called by both names : so the verses thereby agree."

tueri potest, Plin. l. 10. c. 8, "called the black eagle, according to Bochart, from its great strength in proportion to its size. * * The Targum renders it *ngaysa* [strong one] and so preserves the idea. * * Bate, Crit. Heb. explains it by the *whining kite*, from *נח נח* *neyah* its noise and *נח* *nges* impudent, strong and bold disposition and in his note on Lev. xi. 13, he says they have on the South Downs in Sussex, a whining kite which may be heard when very high in the air. * * Whatever bird was intended, I think it was so named from *nges* its strength, and *niyah* its moaning."—P. "Pandion haliaëtus. Some think the black eagle is here intended, but the probabilities are at least equally in favor of our version."—Pict. Illus. Bib. Order Accipitres, Cuv.

4. דאח (daah) vulture, v. 14, T. O, דיתא (dita) S. J. T. milano (glead kite) *falco miloris* Linn. G. T. Geier; M. Weissen habicht (white hawk) B. *milvus*. "Vulture, changed in Deuteronomy into דאח probably through an error of the copyists"—F. "Primary meaning flight, the bird is so called from the extreme rapidity of its flight"—K. "The kite is called in Hebrew, Lev. 11, 14, *Daah* of flying, Deut. 14, 13, *Raah* of seeing, for the kite flieth with violence, and espieth her prey from farre."—Crit. Sac. "A kite or glead, so Vulg. *milvus*, which is remarkable for flying, or, as it were, sailing in the air with expanded wings. Thus our English glead is from the v. to glide, &c,"—P. Order Accipitres, Cuv.

5. איה (ayah) kite; v. 14, T. O. תרפיתא (tarapheta) S. J. T. bueytre, G. T. meike M. Schwarzen habicht (black hawk) B. *cornix* (crow, rook.) "An unclean predaecious bird of the vulture species, probably so called from its cry,"—F. Crit. Sac. *cornix*. "A species of unclean bird, remarkable for its sharp sight. See Job xxviii, Lev. xi, 14, Deut. xiv, 13. . In the first passage, the English translation renders it a vulture, in the two latter, a kite, I should rather think it means a vulture and that this bird was so called either from its ravenousness, or, from the cry it makes,"—P. "In Deuteronomy, the text has 'the raah, and the ayah and the dayah after its kind.' Our sages affirm (in Cholin, folio 63. that the raah and daah are identical, as are the ayah and dayah; and according to R. Abuah (loc. cit) the daah, raah, ayah and dayah, are merely different names for the one bird, * which is called raah, which in Hebrew means to see, because of its quick sightedness; daah from its rapid movement, the expression moving, 'as the eagle,' being proverbial and the ayah may also be thus called, [for the word *ayeh* means *where* in Hebrew] and the exclamation *ayeh* is the most likely to rise to the lips when this bird is in flight, since it is so soon lost in view. These qualities are more particularly found in that bird which in German is called *habicht* (hawk)"—W. "It is so called because it is accustomed to frequent known places (eyim)"—Ab. Ez.; *Milvus*, Order, Accipitres, Cuv.

6. עורב (ngoreb) raven, v. 15, T. O. עורבא (ngoorba) S. J. T. cuervo; G. T. and M. raben; B. and F. *corvus*. The root means to mix, hence the following remarks of Bochart and Aben Ezra. "The color of a crow or raven is not a dead, but a glossy shining black like silk, and so is properly a mixture of darkness and splendour." "It is of the same signification as ngereb, i.e., evening, implying mixture," "Order Passerine "It scents carrion at the distance of a league, and also feeds upon fruit and small animals, even carrying off poultry," Cuv.

7. בת חיאנה (bat hayanganah) owl, v. 16, T. O. בת נחמא (bat nagma) S. J. T. hyja del'auillo, Ser. and Cass. de R. abestruz (*Strix Aluco*, Linn.) G. T. strauss (ostrich) B. *ulula*. "It resides chiefly in desert places, and has a lugubrious cry"—K. "Ostrich, so called from their loud crying to each other. 'In

* See note. p. 64.

the loneliest part of the night,' says Dr. Shaw, 'they frequently made a very doleful and hideous noise which would sometimes be like the roaring of a lion; at other times it would bear a near resemblance to the hoarse voices of other quadrupeds, particularly of the bull and ox. I have often heard them groan as if in the greatest agonies, &c. &c. &c. See the continuation of Parkhurst's interesting remarks on Lam. iv. 3, etc. Rad. נחש "Aben Ezra on Exodus xxiii, 19, writes, that the flesh of the yanganah is dry as wood, that men eat it not, because of its lack of moisture, but the young female's is eatable as possessing some. The additional word *bat*, our sages say, refers to the egg of the yanganah." "Some say that the *bat* [meaning daughter or young female] *hayanganah* present a species in which there is no male found;—that the word in the plural has a masculine termination, is nothing, since we find it frequently applied to feminine nouns, e. g. yangalim, rechelim,"—Ab. Ez. There is certainly a female Ostrich, wherefore Ab. Ez. cannot refer to them. Cuvier classes the owls among the Accipitres and the ostriches among the Grallæ or stilt birds, which "feed upon fish, reptiles, worms and insects."

8. נחש (tachmass) night hawk; T. O. נחש (taisa) S. J. T. mochuelo (horn-owl) *strix otus*, Linn. G. T. nachtenke; M. schwalbe; "So called because he violently pursues other birds seizing them for his prey, thus the Targum Yerushalmi translates it *chatoofita*"—K. The root means violence, rapine. "The LXX. render it *glauca* and Vulg. *nocturnus*. I think, therefore, it was some kind of owl, and considering the radical import of its Hebrew name, it might not improbably be that which Hasselquist, *Travels*, p. 196, describes as "of the size of the common owl, and being very ravenous in Syria, and in the evenings, if the windows are left open flying into houses and killing infants, unless they are carefully watched, wherefore the women are much afraid of it."—P. "Some say it is the male of the bat *hayanganah*."—M. "Schwalbe, it is of the predaceous kind; some consider it to be the falcon, and this name well becomes it, from its comparative fierceness among birds."—W. "From the root *chamas* violence."—Ab. Ez. Order Accipitres, Cuv.

9. נחש (shachaf) cuckoo; T. O. נחש (taippor shachafa) S. J. T. *cerceta* (or *gar-ceta*, like Cass. de R. and Ser. widgeon, a kind of small wild duck *Anas querquedula* Linn). G. T. kukuk; B. larus (sea mew). "Larus; according to Kimchi, a bird laboring under phthisis." So Furst translates *shachafat*. "Osealon Jun. accipitris species, *circulus*, rather the cuckoo. Pagnine rendereth it *Phthitica*."—Crit. Sac. "The sea gull or mew, thus called on account of its leanness, slenderness or small quantity of flesh, in proportion to its apparent size LXX *caron*, Vulg. *carus*. "It is of the same signification as *shachafat* and implies atrophy, consumption; the bird is places the cuckoo among the Scan-stomach, *cæca* like those of the owls

J. T. *gavilan* (sparrow hawk, *Falco hawk*). B. accipiter. "From the root Ezra, the Baal haturim and Shelomoh wing."—F. "It is a bird with which master."—K. Crit. Sac. Accipiter; translated like Rashi by the French *rk*, from his rapid flight, or shooting 16, Job. xxxix. 26, which last passage towards the south, for most of the genus

of hawks are birds of passage."—P. "When its plumage is ample, it is constantly on the wing, and flies southward for heat."—Ab. Ez. Order Accipitres, Cuv.

11. כוס (kos) little owl; T. O. קריא (karya) S. J. T. halcon, (falcon hawk. Falco Linn.) G. T. kauzlein; M. huhu; B. bubo; F. pelican; a bird having a cup-like appendage to the craw." "R. Selomoh explains it by the foreign word, falcon, which resides with men, and is employed by them in hunting."—K. "Targ. and in Mas. Nidah it is translated *karia* and *kephupa*, and Rashi explains it as a bird which cries during the night, and having something human about the appearance of its face. Compare Ps. cii. 6."—W. Perhaps the Kos is identical with the Lilith (Isa. xxxiv. 14) which is no doubt the *bubo maximus* or eagle owl. In the travels of Captains Irby and Mangles, the following observation occurs in their account of Petra. "The screaming of eagles, hawks, and owls which were soaring above our heads in considerable numbers, seemingly annoyed at any one approaching their lonely habitation, added much to the singularity of the scene." Order Accipitres, Cuv.

12. שלך (shelach) cormorant; T. O. שלילונה (shaliluna) S. J. T. and de R. gavista, gavia, (sea-gull, gull, *larus* Linn.) G. T. schwan; M. fischreiher (heron) B. mergus. "According to the Gemara, a bird that draws up fish from the water [Chol. fol. lxiii, 1,] lxx, katarraktes; Vulg., mergulus,"—F. "Cormorant is so named in Hebrew of *shalach*, of casting itself down into the water"—Ainsw. ap. Crit. Sac. "Root means to cast; as a N. a kind of sea fowl, the *cataract* or *plungeon*. Its Heb. and Greek names are taken from a very remarkable quality, which is, that when it sees in the water, the fish on which it preys, it flies to a considerable height, then collects its wings close to its sides, and *darts down* like an arrow, on its prey. See Bochart vol. iii, p. 278, and Johnston Nat. Hist. de Avibus p. 94, who adds that by thus darting down it *plunges* a cubit depth into the water whence evidently, its English name *plungeon*,"—P. "Under the common appellation *shalach* the shag and some other species of *Phalacrocorax* or *cormorant* were included." Pict. Illust. Bib. where see a most interesting account of them. "As conveyed by the Targumist, a bird drawing fish from the water"—R. "Some say a bird that is accustomed to cast its young"—Ab. Ez. "Order Palmipedes (having webbed toes) their voracity is proverbial," Cuv.

13. ינשוף (yanshoof) great owl; T. O. קיפופא (kifufa) S. J. T. lechuza (*stirix passenina* Linn.) G. T. huhu; M. nachteule; B. noctua; "According to Kimchi, a bird that flies or cries at night only (nachteule) so also the Targumist; according to Aben Ezra a bird only flying at evening because it cannot bear the light of the sun"—F. "An owl or bat, because it flieth at twilight."—Crit. Sac. Parkhurst, however, says that this interpretation, so generally accepted among Jews and Christians, is very forced, and endeavours to show at length that the Ibis is meant; but we think his position quite untenable, and this for the reasons he himself states. "Rashi says that the *kos* (little owl) and the *yanshoof* are called in French, *chouette* (screech—owl) and there is another species like it which is called *hibou*, (owl). Rashi does not mean to say here that the *Kos* and *Yanshoof* are one and the same species, but they are placed together in one verse because they are alike in respect to crying out at night."—W. Order Accipitres, Cuv.

14. תנשמת (tinshemet) swan; v. 18, T. O. בבתא (bavta) S. J. T. calamon (purple water hen) G. T. and M. fledermaus (bat) B. mouedula. "Yitschaki understands it *vespertilionis*, like the mouse that flies at nights (bats), and Aben Ezra adds it is so called from the exclamation נַו (shom) *there!* made on beholding it, and thus does

the Targumist render it *basta* (and not *cavta* as in many readings). Nevertheless it appears to be a kind of marine bird, and so the Seventy render it *ibis*, porphyrion sea fowl or swan, it is also the name of a four footed reptile, &c."—F. "Perhaps a species of owl so called from its breathing in a strong and audible manner, as if snoring. But as in both these passages, particularly in the former, it is mentioned among the water fowls, and as the LXX in the latter, appear to have rendered it by the Ibis (a species of bird not unlike the heron) and the Vulg., in the former by cygnus the swan; it should rather seem to denote some water fowl, and that (according to its derivation) remarkable for its manner of breathing. And therefore I think the conjecture of the learned Michaelis (whom see, Recueil de Questions p. 221) that it may mean the goose which every one knows is remarkable for its manner of breathing out, or hissing when provoked, deserves consideration."—P. [according to our opinion, but very little] "It is the French *chasse souris*, and like the mouse that flies at night; and the *tinshemet* which is mentioned among reptiles is similar, and has no eyes, it is called *talpa*"—R. "Swan, order Palmipedes, Ibis order Grallae. The sacred Ibis was adored by the Egyptians because it devoured serpents, &c."—Cuv.

15. קאט (kaat) pelican; T. O. קאט (kata) S. J. T. cernicolo, Cass de R. cione (Falco Tinunculus Linn.) G. T. rohrdommel (bittern) M. pelican; B. platea, pelicanus. "A bird of the waters or desert which regurgitates what it swallows in its hunger (pelican). "R. Judah saith in the Talmud that the *kaat* is identical with the *keek*, and in the Jerusalem Talmud R. Ishmael teaches the same. In the Mishna there occurs the expression 'and not with the oil of *keek*.' (See Section Bamè Madlikin). And in the Gemara the question is put as to what is meant by the oil of *keek*? which Shemuel answers by saying it is a water bird of that name."—K. "Platea avis, pelecannus, a vomitu. Conchas enim calore ventris coctas, rursus evomit, ut testis rejectis esculenta seligat ut scribit Plin. Lib. 10, cap. 40, et Aristot. lib. 9, cap. 10, de Histor. Animal, &c."—Crit. Sac. "Root *ka* to vomit;—the pelican; the principal food of the pelican or onocrotalus is shell fish, which it is said to swallow, shells and all, and afterwards, when by the heat of its stomach, the shells begin to open, to vomit them up again and pick out the fish. See the continuation of Parkhurst's lengthy and interesting remarks under the cited root. This just quoted remark is verified, and we might say the very expressions found, perhaps unknown to him, in the Talmud Treat. Chol. p. 73, referred to by Aben Ezra and Wessely, in their comments. Order Palmipedes, Cuv.

16. ראח (racham) gier eagle; T. O. ראח (rakrayka) S. J. T. pelicano (Pelecanus onocrotalus Linn.) M. specht; B. merops (bee catcher). "A bird of the vulture kind, so called from its love to its young, [its root means to have compassion, like *chassida*, a stork from *chesed* mercy] vultur perenopterus Linn. The to its green color."—F. The remarks of notation from Furst. "Bochart, vol. iii. has a kind of vulture which the Arabs call by *la*, p. 449, takes it for the *Perenopterus* or *Bobba*, which signifies *white father*, a name have for it, partly from the color of its respect it differs little from the stork, being a large capon, and exactly like the figure given us of it. These birds, like the ravens, nastiness that is thrown without the city is placed between *kaat* the pelican and

chasidah the stork, and in Deut. *rachama* between *kaat* the pelican and *shelach* the cataract, which positions would incline one to think it meant some kind of water fowl. But, however this be, this bird seems to be denominated from its remarkable tender affection to its young. Com. Ps. ciii. 13, Isa. lxiii. 15, 1 King's iii., 26." —P. Order Accipitres, Cuv.

17. חסידה (*chasidah*) stork v. 19; T. O. חַוְרַמָּה (*chavarita*) S. J. T. *cigüena* (*Ardea ciconia* Linn.) G. T. and M. storch; B. *ciconia*. "A bird exhibiting special compassion towards its young; [*chesed* means mercy or compassion] *ciconia*."—F. "We learn from Scripture that it is a periodical bird, or bird of passage, (Jer. viii. 7) that it has large wings (Zech. v. 9) and that it rests in *berushim* fir or cedar trees (Ps. civ. 17). All these circumstances agree to the stork which appears to have had the name *chasidah* from its remarkable affection to its young, and from its kindness or piety in tending and feeding its parents when grown old [the same derivation is given, in nearly the same words, by Rashi. See his comment.] I am aware that by some, this latter fact is treated as a fable, but I must confess when I find it asserted by a whole cloud of Roman and Greek writers, who had abundant opportunity to ascertain the truth or falsehood of it, and especially by Aristotle and Pliny, and that among the Greeks in particular, it passed into a kind of proverb in their application of the V. *antipelargein* and of the names *antipelargia* and *antipelargesis* for requiting ones parents, and in their calling laws enforcing this duty *pelargikoi nomoi*—on these authorities, I say, I cannot help giving credit to the fact just mentioned. * * * *Chasidah* cannot mean the *heron* for the common heron is not a bird of passage. It has, however, so great a resemblance to the stork that it is ranged by naturalists under the same genus. * * * They will feed upon frogs, carefully selecting the toads, which they will not touch."—P. But for its extreme length we would produce the whole of Parkhurst's learned and interesting article—we recommend the attention of the critical reader to it. Aben Ezra says that it appears at regular periodical intervals, as it is written Jer. viii. 7. "Yea, the stork in the heavens knoweth her appointed times, &c." "So punctual are they in their comings and goings, that, from the most remote times they have been considered as gifted with reasoning powers. * * The coming of the storks was the period of another Persian festival, announcing their joy at the departure of winter. The expression 'the storks in the heavens' is more applicable than at first appears, for even when out of sight, its path may be traced by the loud and piercing cries peculiar to those of the new as well as of the old world. * * Besides the Jews, other nations held this bird in veneration."—Pict. Illus. Bib. "Their gizzard is slightly muscular and their two cæca so small as to be barely perceptible. Order Grallæ," —Cuv.

18. אנפא (*anafah*) heron; T. O. עֲבֹו (*eboo*) S. J. T. *ensanadera*; Cass de R. and Serr. *cuervo marino*; G. T. and M. *reiher*; B. *milvus* (kite). "According to the Talmudic doctors, the angry dayah or vulture, the root being *anaf* to be angry."—F. "In Latin *Ardea* of *ardeo* to burn, chiefly because she is an angry creature." Crit. Sac. "Heron, so named from its angry disposition, as the stork is called *chasidah* from its kindness. Bochart, vol. iii. 337, takes *anafah* for a kind of eagle or hawk, but if this were the true meaning of the word, I think it would have been reckoned with one or the other of those species in the preceding verses."—P. "As in Cholin the angry Dayah, to me it appears to be the heron."—R. "*Anafah* because it becomes quickly incensed."—Ab. Ez. "Their stomach is a very large sac, but slightly muscular, and they have only one minute cæcum. Order Grallæ, Cuv.

19. דוכיפת (*doochifhat*) lapwing; T. O. נָגַר מִרְא (*nagar toora* "cock of the moun-

tains." Elias in Methurgaman observes that it is called in German an *awrhane*. D. L.) S. J. T. gallo montes; Serr. and de R. aborilla; G. T. miedehopf; B. upupa pious "According to another opinion it is derived from *duch* (gallus) and *kefa* (mons)."—F. "Rab. Sherira the Gaon, explains it also, to mean *tarnagol habar* (wood cock). "The lapwing is so called of the double combe that it hath, *Gallus sylvestris* aut *Gallina sylvestris*."—Crit. Sac. "The upupa, hoopoe, or hoop a very beautiful, but most unclean and filthy species of bird which is, however, sometimes eaten. So the LXX, *Epoph*, and Vulgate *Upupa*. (See Boch. v. iii. Brookes Nat. Hist. v. ii. p. 123.) It may have its Hebrew name as it plainly has its Latin and English one, from the noise or cry it makes."—P. "Wood-cock, its comb is double in French *hupe*, called nagar toora, because of its acts, as our sages explain in Masechet Gittin (p. 63)."—R. "The Sadduces say this is the cock, but they are the fools of the world [most irrational,] for who told them? [since they reject traditionary teachings.]"—Ab. Ez. Lapwing Order Grallæ, Cuv.

20. עֲרֵלֵף (ngatalef) bat; T. O. עֲרֵלֵפָה (ngatalepha) S. J. T. morciegalo; G. T. schwalbe, B. vespertilio. "According to Aben Ezra, a small bird flying at night, derived according to Kinchi, from ngatal (darkness) and ngef (to fly). This, however, does not seem a proper explanation to me. I consider it to be a reptile which is like a mouse (bat) thus we find in Isaiah it is joined to *chefer perot* (ch. ii. v. 20). Ang. Vers. moles, its root *ngatalef*, as in Latin *talpa*; if so the *ngain* becomes paragogic, whence is derivable the bird's name which is like it."—F. "The winged mouse which flies at night."—K. "Vespertilio quæ in caligine volitat, et interdum se velat."—Crit. Sac. "Perhaps from *ngat* to fly and *ngalaf* obscurity. A bat, which flies abroad only in the dusk of the evening and in the night, according to Ovid, Metam. lib. iv. fab. 10, lin. 415. Nocte volant, seroque trahunt a vespere nomen"—P. "R. David Kimchi writes that it means the winged mouse that flies at nights. If so, we find that the sacred book commences its enumeration with the king among birds, viz: the eagle, and finishes with that which is intermediate between a bird and a reptile"—W. Cuvier places the bats among the Carnaria, the third order of Mammalia.

Of flying reptiles (sherets hangof) we have mentioned 1. אֲרֵבָה (arbeh) rendered by the Anglican version, locust; 2. סִלְעָם (solngam) bald locust; 3. חֲרָגֹל (chargole) beetle; 4. חָגַב (chagab) grasshopper. This first is translated locust, but the other three are left untranslated by the Spanish Jewish Translators, Casiodoro de Reyna, most of the German translators and Mendelssohn. They are rendered by Buxtorf, respectively, locusta, species attelabum; cantharus; and locusta; by Furst, locusta; species locustæ a voracitate nominatæ; genus locustæ, a saliendo, &c.; locusta gregaria. According to Kimchi, 1. locust; 2, one of the species of locusts, the רָשׁוֹן rashon (bald locust) of our sages [see Chol. fol. 65 a, and Vayikra Rabba, sec. 14] it has a bald forehead, no tail, but elongated head. 3. Species of locust; 4, the same. Parkhurst thus renders them, with the following remarks: 1, a locust; some place the word under this root, (arab) to lie in wait, because these insects suddenly and unexpectedly come forth upon countries as from lurking places, plundering and destroying, &c., 2. from *salang* to cut, &c., a kind of locust, probably so called from its rugged craggy form as represented in Scheuchzer's Physica Sacra tab. ccl, fig. 1 which see, &c., 3. a kind of locust; it appears to be derived from *charag*, to shake, and *regel*, the foot, and so to denote the nimbleness of its motions. Thus, in English we call an animal of the locust kind, a grasshopper, the French name of which is likewise *sauterelle* from the V. *sauter* to leap. 4. * * I should rather think that *chagab* denotes the cucullated species of locust, so denominated by

naturalists from the *cucullus*, cowl or hood with which they are naturally furnished, and which serves to distinguish them from the other birds, &c." P. The Arabas eat them in a fried state with salt and butter; and the writer of this has seen several Jews from Barbary eat the locust with much apparent gusto in the city of London, evidently considering it a great luxury, and themselves, much favored in being able to procure these native delicacies where the public taste has not yet called for them, though it requires, in abundance, creatures of most loathsome appearance and character, which it cannots in justice, be said the locust, present. The locusts are classed by Cuvier among the Insecta, 2nd family of the Orthoptera, viz the Saltatoria.

With respect to *reptiles*, it will be recollected from an examination of the word שָׂרָץ (sheretz) on page 52, to which the reader is referred, that in Hebrew this word has a much wider acceptation than in English, and includes things moving swiftly in the waters, as *swimming* fishes, or on the earth, as weazels, mice, &c. This premised, the scriptural classification will be better appreciated.

1. חֹלֵד (choled) weasel v. 29, T. O. חוּלְדָּא (choolda,) S. J. T. comadreja, (*mustela vulgaris*, Linn.) G. T. and M. wiesel; B. *mustela*; F. *talpa*, called so in the Talmud, because of its digging or scooping; we find "the Eternal hollowed for them (*machlid*) the earth."—F. K. *mustela*, "The weasel is called in Hebrew *choled*, of *cheled* time, not because it liveth long as *oleaster*, but because it soon waxeth old and so giveth way to time."—Crit. Sac. "It seems to have its Hebrew name from its *insidious creeping* manner."—P. "Order Carnaria (being very sanguinary, and living almost entirely upon flesh.) The true weasels are the most sanguinary of any"—Cuv.

2. עֶבְבֵר (ngachbar) mouse; T. O. עֶבְבֵרָא (ngachbera) S. J. T. raton; G. T. and M. *maus*; B. and F. *mus*. "Harmer shows that in latter days mice have been sometimes most destructive, to Palestine in particular"—P. Order Rodentia, Cuv.

3. צָב (tsab) tortoise; T. O. צָבָא (tsaba) S. J. T. sapo; G. T. *kroté* (toad,) M. *schildkrote*; B. *testudo*; "Bufo, à tumescendo, *testudo*,"—Crit. Sac. "The toad, from his *swelling* (the root means to swell) or rather because there seems no occasion to forbid eating the toad, the *tortoise*, from the turgid form of his shell"—P. "R. Eliau Bachur translates it *schildfrote* identical with *schildkrote*"—W. "verdier, apptoaching the frog", R.—Reptilia—Order Chelonia, Cuv.

4. אֶנְקָא (anakah) ferret, v. 30, T. O. יָלָא (yala) S. J. T. erizo (hedgehog) G. T. and M. *igel*; F. *stellio*, a sono. "so called perhaps from its continued cry"—K. "A kind of lizard or newt, so called from its moan or doleful cry"—P. *herisson* according to Rashi. Cuvier places the lizards among the Reptilia, second family of the Saurians. The lizards are distinguished by their forked tongue, &c. Those called the monitors frequent the vicinity of the haunts of crocodiles and alligators, it is said that they give warning, by a whistling sound, of the approach of these dangerous reptiles, and hence probably their names of *sauvegarde* and *monitor*"—Cuv. This is certainly intimated in the Hebrew name.

5. כָּח (koach) chameleon; T. O. כּוּחָא (kocha) S. J. T. lagartija; G. T. *molch* (salamander) B. *lacerta*, "genus *lacertæ*, non a robore nominatum, sed ab humare vel sputo quod emittit"—F. "R. Yonah writes that it is called *hardon*, it is a species of the צָב (tsab,) and R. Solomon writes that in the vernacular it is called lizard."—K. "A species of lizard well known in the east, and called by the Arabs *alwarlo*, or, corruptedly from them, *warral* or *guaril*, and so remarkable for its vigor in destroying serpents and *dhaba*, (another species of the lizards) that the Arabs have many proverbs taken from these its qualities, &c."—P. "Rashi, Onkelos and

Jonathan Ben Uziel and Mendelssohn do not translate this word at all; but it appears to me to be identical with the Arabic *guaril* known for its great strength.”—W. Cuvier places the chameleons among the Reptilia, 5th family of the Saurians.

6. לטאה (letaah) lizard, T. O. לטאה (letaah,) S. J. T. caracol (snail) G. Tei .der; B. stellio, lacertas, “lacertæ species, sic dicta quod terræ adhaereat (?)”—F. “A species of *poisonous lizard* called in Arabic *wachra*, and remarkable for adhering closely to the ground. Vulg, stellio, a *newt*, which may confirm the interpretation here given”—P. “The *lacerta gecko* is a species of lizard found in countries bordering on the Mediteranean, it is of a reddish grey, spotted with brown. It is thought at Cairo to poison the victuals over which it passes, and especially salt provisions, of which it is very fond. It has a voice resembling somewhat that of a frog, which is intimated by the Hebrew name, importing a sigh or a groan.” Pict. Illus. Bib.—R. lizard. Reptilia, 2nd family of Saurians, Cuv.

7. חומט (chomet) snail, T. O. חומטא (choemta) S. J. T. babosa (limax, Linn,) G. T. and M. blindschleich (slow worm or snail) B. limax; F. limax ut plurimi vertunt. “Lacerta, secundum divum Hieron. vel limax. Testudo, cochlea terrestris secundum R. David.”—Crit Sac. “A kind of lizard. In Chaldee the V. signifies to bow down, depress, prostrate; and the animal might be called by this name from its being (by reason of the shortness of its legs) always prostrate, as it were. In Josh. xv. 54, we have Chamta, the name of a town in Canaan, perhaps so called from the *emblematic reptile* there worshipped, Comp. Deut iv. 8”—P. “limace”—R. Mollusca, Gasteropoda Pulmonea, Cuv.

8. תינשמת (Tinshemet) mole; T. O. אשומא (ashota) S. J. T. topo, (talpa, Linn.) G.T. and M. maulwurf, B. and F. and K. talpa. “Root means to breathe, as a N., a species of animal enumerated among the lizards. The learned Bochart hath plainly proved that it was no other than the *chameleon*, an animal of the lizard kind, furnished with lungs remarkably large, and so observable for its manner of *breathing* or perpetually gasping as it were for breath, that the ancients feigned it to live only on the air. Thus Ovid, Met. lib. xv, fab. iv, lin. 411. ‘Id quoque quod ventis animal nutritur et aura.’ (The creature nourished by the wind and air)”—P. This applies equally to the mole, since “while employed throwing up those little domes which are called mole hills, he is said to pant and blow as if overcome with the exertion”—Pict. Illus. Bib. Yet the context would show that he is right in placing the *Tinshemet* among the lizard species. Cuvier places the mole among the Carnaria of Mammalia.

From the foregoing analysis, we may consider the following as legitimate deductions. First, as regards *beasts*, we find that even such of them as approximate so closely to those which ruminant and divide the hoof, that the most able of modern naturalists have been in doubt as to their classification (e. g. the camel, see p. 61) are pronounced, as of the prohibited species by the text, which rigidly and unqualifiedly demands the two requisites mentioned. We further find, that by this requirement the law selects as the proper food of the Hebrews, those beasts *which possess the most perfect digestive apparatus*, and whose flesh, therefore, would be, according to principles laid down by eminent scientific authorities, of the most healthy description. By this dictum; also, the law includes as permitted, that large and most valuable class of domestic

animals (the *Ruminantia*) which best minister to the dietary and other wants of men. As a further consequence we find that the remaining order of animals, which present, almost without exception, a catalogue of wild, carnivorous, rapacious, sanguinary and, but for their skins, chiefly useless, animals, whose digestive apparatus is of a plainer and less perfect character, and who possess, for the most part, a single stomach and claws to tear their prey,—that such form the prohibited class. And with respect to *birds* we find further that quite an identity exists in their character, both with the permitted and prohibited; for the examination we have made shows us, that although there be some difference of opinion among Hebrew authorities themselves, respecting the enumerated species,* yet do they all agree, as do Christian critics, in referring an overwhelming proportion of them to the *Accipitres* or *Raptores*, which are birds of prey. Now, while these, like the beasts of prey, possess a less perfect digestive apparatus than that of the permitted birds, which include chiefly, though not exclusively, that valuable class known as the domestic, theirs, as we have before shown, is of a more complicated and perfect character, establishing thus the referred to analogy in so far as concerns digestion, and, perhaps, the nature of their flesh. It is further established by the text objecting to those wild, carnivorous, rapacious and sanguinary birds possessing, like the prohibited beasts, a single stomach and claws to tear their prey. And it is further established in that there are instances of doubtful species among the enumerated birds, (e. g. the raven) just as there are among the enumerated beasts, which are, however, determined by the sacred text.† This premised, we may proceed to the consideration of the third point of inquiry, viz., the prohibition of the clean and unclean animals having reference to authority and reason.

As with the prohibition of blood, Hebrew authorities have assigned both religious or moral, and hygienic, reasons for the institution of such law; and as in the former case, we shall select the most valued of these authorities, and present them in an English dress to the reader, in conjunction with the illustrations afforded by other authors. We regard that most valuable and interesting,—we believe, now very scarce, Spanish Jewish work, *Las Excelencias de los Hebreos*, as containing the most comprehensive digest of Jewish opinion on the matter. From it, therefore, shall we prefer to translate, commencing at the third division, (*Tercera Excelencia; Separados de todas las naciones*) at the 39th page.

* The number of species of birds known to naturalists is about 5000.

† See commentary of Abarbanel quoted on p. 54.

“Three opinions are offered respecting this prohibition. The first is, that all the meats condemned by the law afford an objectionable and improper nourishment, deteriorating from the health and good temperament of the body, and embarrassing the devotion of the soul. In this way speaks the great R. Moses, of Egypt (Maimonides, Mor. Neb. c. 3) when discoursing concerning the reasons of the precepts, referring, among other matters, to the swine, which he says is of a very humid nature, and that the principal cause of its prohibition is its extreme filthiness,—that had it been permitted to become a staple article of food, [its evils would have predominated over its advantages] for the streets and habitations would become as filthy as so many dirt receptacles, (muladares) as we find is the case with those uncleanly cities where the injurious practice of permitting these animals to congregate in public places [to collect their noisome food] obtains. [Could our author have seen some of the poorer Irish neighbourhoods and cabins, as we have seen them, both in Britain and America, presenting so many revolting sties where man and hog assist each other to engender and diffuse fever and pestilence, he would have found powerful and fearful testimony to the truth of the idea of which he writes.] The fat of the swine is, in itself, sufficient to impede the circulation, [and, we take leave to add, is one of the chief reasons why such fearfully vast quantities of intoxicating liquors are consumed in those countries where it is chiefly eaten, as may be seen by a comparison between Great Britain, the United States, and Canada on the one hand, and Italy and other southern countries on the other. And the eating of such gross meat is an excuse for the abused drinking customs of society, of which excuse, so far as our limited inquiries have shown us, modern inquiry has failed to show the inefficacy,* and to which the attention of the so called Temperance Societies should be directed ;—but to return to our author; the fat, he says, further] engenders cold, and, so to speak, greasy, blood; wherefore, the desirableness of prohibiting it, is established.”

We shall here subjoin in illustration what other authorities have advanced on this subject, commencing with a few extracts from a very interesting pamphlet by Mr. Begg, of Glasgow; † Dr. James observes, that the hog is the only animal subject to the leprosy, and also to something very like what we call the king's evil: for scrofula is evidently derived from *scrofa*, a sow. The measles is another contagious distem-

* But the contrary. See the various works, which running to an opposite extreme, advocate an exclusively vegetable diet.

† “The Purpose of God in the Separation of the Israelites as a People, &c.” A Lecture, &c., 1844.

per to which this animal was subject. 'We need not, therefore, be surprised to find, that in his Medical Dictionary he should express his conviction,' that God had particular respect to the health of the Jews in thus prohibiting certain creatures to be eaten, as being unclean; which according to this skilful and learned physician, is nearly synonymous with 'unwholesome.' Among other contagious diseases ascribed by Grotius to the flesh of the swine, is scurvy also.—See Hewlett's Commentaries on Scripture, on Lev. xi., 7, 47. Ulloa, in his voyage to South America, likewise states that the inhabitants of the whole extent of the government of Carthagena, in that country, were in his time, very subject to leprosy. He farther states that pork was there a very common food, and that some of their own physicians attributed the disease to this cause. So much afraid were they of its spreading, that the diseased, without distinction of age or rank, were forcibly confined in an hospital, and allowed to intermarry only among themselves.—Voyage, vol. 1, p. 45. M. Rollin, surgeon on board of La Pyrouse's ship, in his expedition, remarking on the general prevalence of leprosy at Mowee, one of the Sandwich Islands, says, 'the nature or quality of the food may concur with the heat of the climate to nourish and propagate this endemic disease of the adipous membrane; for the hogs even, the flesh of which forms the chief part of the food of the inhabitants of Mowee, are many of them extremely measly. I examined several, and their skins were scabby, full of pimples, and entirely destitute of hair. On opening these animals, I found the caul regularly sprinkled with tubercles, and the viscera so full of them, that, in the least delicate stomach, the sight could not but have produced a nausea.'—Peyrouse's Voyage, vol. iii., p. 169. Observe now the array of exceptions made to the use of this forbidden food by a medical authority of our own country, who would not wholly exclude it. Dr. Willich in his Lectures on Diet and Regimen, says, 'Persons who have impure fluids, and a tendency to eruptions, as well as those who have wounds and ulcers, should refrain from the use of pork; for this food will dispose them to inflammation and gangrene. It is equally improper in a catarrhal state of the chest, in weak stomachs, coughs and consumptions.' See Forsyth's Dictionary of Diet, art. "Pork." But we have surely some reason now to inquire whether, if pork be so improper for those that are so diseased, there be not in the fact itself the evidence that the use of it will also contribute to produce these diseases in those previously free from them? 'Of all the abominable feeding creature,' says Whitlaw, 'the swine may be said to be the chief: it is more liable to disease, and entails more misery on the human race than any other animal: when in the fields, it will root up and eagerly devour all kinds of poisonous roots, particularly

the ranunculus bulbosus ; and I have frequently observed the effect to be, a severe attack of inflammation of the cuticle over their whole body, attended with swelling of the legs and sloughing from the skin in bran-like scales. When they continue the use of such fiery food, the skin becomes permanently diseased, the glands diseased, and frequently discharge matter: they are, in truth, affected with scrofula, and are certain to communicate the disorder to those who eat them.' White-law's Code of Health, p. 61. The author having ascertained, by the use of the lens, that the leprous condition of the swine, is produced by an insect engendered in the skin, and considering all leprosy to be of the same nature, he thus accounts for the obligation under the law (Lev. xiii, 52 ; xiv, 45,) to destroy the clothes and the houses in which the disease, after inspection, continued to manifest itself. From his own observation in the West Indies and Southern States of North America he declares that the clothes and houses were sometimes thus contaminated by this disease ; and that during hot weather when leprous swine go into a pond to cool themselves, a lead-colored scum floats upon the water, beneath which these insects may, by the aid of a magnifying glass, be seen in myriads (Ib. p. 62.)

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Principles of Human Physiology, with their chief applications to Psychology, Pathology, Therapeutics, Hygiene, and Forensic Medicine. By WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S. Fifth American, from the fourth and enlarged London Edition. Edited by Francis Gurney Smith, M. D. Philadelphia, Blanchard and Lea, 1853. Montreal, B. Dawson, p. p. 1091.

This excellent work appears before us as a reprint of the fourth and last London edition, and no pains have been spared by either the Author or the Publishers to render it in every way, superior to its well received predecessors.

From the great number of laborers in this fruitful field of medical science, the discoveries that are being constantly made, require new editions of works, before the older ones are run out. The present edition has been entirely remodelled, and is in reality *a new treatise* on the subject.

The chapter in previous editions which treated "of the different branches of the Human Family and their Mutual Relations," has here been extended in all that relates to Man, and curtailed in that which relates to comparative Physiology ; and has been transferred to nearly

the end of the volume, which the Author considers to be now the more appropriate place for it.

The second chapter of the present edition, comprising a general review "of the Chemical Components of the Human Body, and the changes which they undergo within it," is now introduced for the first time. This is one of the most important additions to the work, and of which we have often observed the want in former editions; Todd and Bowman's Physiology being the only one supplying this deficiency.

Several new views of the Author will be found in this chapter, especially in the respective relations of Fibrin and Albumen to the nutritive process, and of the former to the Gelatinous tissues. And in the general summary which forms the last section, in which are the discoveries of M. Cl. Bernard, in regard to the elaboration of sugar and fat in the Liver, his views are placed by our Author in a somewhat novel aspect. He considers that the sugar generated, by the agency of the liver, from the products of the waste or disintegration of the system that are contained in the blood, seems to be at once employed in supporting the combustive process by which the animal heat is maintained. The fat, also, he states, may be directly applied to the same purpose, or may be stored up in the cells of Adipose tissue for future use. This view of the combustive properties of sugar in the animal economy, we consider, supported by the experiments of Bernard, as sugar is found to be present in the blood going to the lungs, but not in that returning from them, and Magendie has already inferred from that circumstance alone, that it must have undergone destruction in the lungs, and the Carbon eliminated.

There is another fact which tends to support this view, and that is, the large amount of sugar found in the fatty livers of some of the Bird tribe, as shown in the experiments of Dr. Gibb, published in this Journal, and also in the livers of the Marine Mammalia, which abound with fat. Very probably there may be, as a result of the operation of Chemical Forces, a conversion of a portion of the fat into Sugar in the liver, which in its turn, become decomposed in the lungs, and thus forms one of the principle sources of animal heat.

"The Structural Elements of the Human Body, and the Vital Actions which they exhibit," form the subject of the third chapter. This includes the general doctrines of cell-formation and of Vital Force in their application to Human Physiology, and appears for the first time in this edition.

The chapter on the Blood, which was formerly contained in the second chapter, is now separated, and forms the fourth chapter. It contains the doctrine of the formation of the Blood, and

an account of that state of the blood which gives a special predisposition to zymotic diseases. To the latter we would direct special attention, as worthy of much consideration, our limits prevent us, however, from dwelling upon it.

The chapter "on the Primary Tissues of the Living Body; their Structures, Composition, and Actions," has had a large amount of new matter added, in great part supplied by the elaborate Microscopic Anatomy, of Professor Kolliker, and many new illustrations have been introduced.

Of most of the succeeding chapters, such important alterations and additions have been made as were essential in the re-arrangement of the work. As for example:—the embodying the results obtained from the study of the Digestive Process by Frerichs, Bernard, and others. The causes of the Heart's Sounds, and a view of its rythmical contractions which the Author believes to be original. Results of Dr. Hutchinson's inquiries on the movements of Respiration. Researches of M. M. Regnault and Reiset, Prof. Scharling, M. Barral and others upon the amount of oxygen absorbed and carbonic acid exhaled. The chapter on the functions of the Nervous System, forms one-fifth of the entire volume, and has had a great many additions and alterations made to it. This subject, in its Psychological as well as in its Physiological relations, has occupied more of the Author's attention than any other department of Physiology, and we have here the more matured fruits of his inquiries and reflections. The peculiar states which are known under the designations of Somnambulism, Hypnotism, Mesmerism, Electro-Biology, &c., are all considered in their relations to Sleep, on the one hand, and to the ordinary condition of Mental Activity on the other; and the Author has not only succeeded in throwing considerable light upon the nature of these aberrant forms of psychical action, but has been enabled to deduce from their phenomena some inferences of great importance in Psychological science.

The additions and alterations which have been made in the chapter "on Generation," are both numerous and important, especially under the section on the "Developement of the Embryo," which has been

is to bring the view of the process more
ing state of our knowledge of it.

it pleasure and very much additional
work, which presents a faithful reflection
ological Science. The clear manner in
and described by our Author, affords an
rks, and still more so to the present.
have been introduced, and also a special

index of Authors referred to, which have considerably augmented the bulk of the volume.

The present reprint, has one very great advantage over the English edition, from its containing upwards of one hundred additional wood engravings, introduced through the liberality of the publishers, and many additional observations, and notices of recent discoveries have been embodied by Dr. Smith.

We can conscientiously recommend the work to the Profession, and to the student as a text book of a superior class, containing a large amount of information on every individual subject throughout the great range of Physiology. It is got up by the Publishers in their usual elegant style, and all the illustrations are beautifully clear and distinct.

The Druggists General receipt Book—comprising a copious Veterinary Formulary, and table of Veterinary Materia Medica: numerous receipts in patent and proprietary medicines, druggists nostrums, perfumery and cosmetics: beverages, dietetic articles, and condiments, trade chemicals, &c., &c. By HENRY BEASLEY, second American, from the last London edition, corrected and enlarged. Philadelphia, Lindsay & Blakiston, 1853. Montreal, B. Dawson, p. p. 472.

This work is intended for the chemist and druggist, and for those who practise Veterinary Surgery, and we think will meet their wants. Its having reached its second edition speaks in its favor.

The Physician's Pocket Dose and Symptom Book—containing the doses and uses of all the principal articles of the Materia Medica, and chief officinal preparations, &c., &c. by JOSEPH H. WYTHES. M. D., author of "The Microscope," "Curiosities of the Microscope," &c., &c. Philadelphia, Lindsay & Blakiston, 1853. Montreal, B. Dawson, p. p. 246.

Books of this description are intended to meet the wants not only of the student, but of the practitioner. The author says in the preface "his aim has been to render it rather suggestive than complete," which it is far from being, for we notice several omissions among the ordinarily used medicines of modern date. *Atropine*, *Donovan's Solution*, *Glycerine*, *Matico*, *Ox Gall*, *Cyanuret of Potash*, and others are altogether omitted, as well as the "Incompatibles," with many of the articles mentioned. Of "Chloroform" the author only says "Anæsthetic from the accidents which have occurred from its use, pure sulphuric

æther is preferable for the purpose of procuring insensibility to the pain of surgical operations," in which we believe he will not find the majority of experienced surgeons to agree with him.

The work contains a table of poisons and their antidotes, and a chapter on dietetic preparations, and also an outline of general pathology and therapeutics and a table of symptomatology.

SCIENTIFIC INTELLIGENCE.

SURGERY.

Division of the Tendo Achillis in certain cases of Fracture of the leg.

THE great ease and complete safety with which the subcutaneous division of tendons is now performed, has led to the employment of that operation for the relief of several conditions distinct from those originally contemplated by its introducers. If, indeed, the great number of cases capable of benefit from it, and also the degree of benefit which, often results, be had in remembrance, tenotomy, as at present practised, may fairly take a high place among the achievements of modern surgery. While it was believed—as was the case until late years—that the division of the tendo Achillis could only be accomplished by a cut through skin and all, after the manner introduced by Thilenius, the operation was properly regarded as of a very serious character. It involved a healing process so tedious, and was attended with such great risk of permanent deformity, as to render it quite inapplicable to any except very extreme cases.

We noticed, a few weeks ago, a very important improvement in the ordinary operation for squinting, which consisted in the division of the offending muscle by a subconjunctival incision, thereby avoiding several of the sources of failure to which the method in common use is liable. We have to-day to report some cases illustrative of another use to which tenotomy has been occasionally put.

A woman of middle age, accustomed to the free use of stimulants, made necessary, as she supposed, by her laborious occupation of washing, was admitted into Guy's Hospital a few weeks ago, having sustained just previously a fracture of both bones of her leg. The accident had been occasioned by a fall down some stairs, and the parts were much bruised, the bone appearing on the point of protruding. Both arteries were found to be uninjured. She was put to bed, and the reduction having been accomplished, the limb was carefully sup-

ported by sand-bags. A condition of extreme spasmodic action of the muscles of the calf, however, came on, and the extremities of the bones were constantly suffering displacement by the jumpings of the limb. Great pain was occasioned by these actions, and considerable swelling resulted. After the limb had been repeatedly re-adjusted, and various expedients resorted to without success, and as there appeared reason to apprehend that the woman's irritable constitution would suffer if this severe local irritation was allowed longer to exist, Mr. Birkett, who, in Mr. Cooper's absence, had taken charge of the case, determined to try the effect of dividing the tendo Achillis. The success which resulted from this operation was most complete; no difficulty whatever was found in keeping the fractured portions in apposition afterwards. The leg was returned to the sand-bags for a few days, being placed so as to relax the gastrocnemius, and allow of the perfect approximation of the ends of the divided tendon. The incision united by the first intention; the leg, after a few days, was placed in splints, and its progress was in every way satisfactory. It should be mentioned, that, in consideration of the patient's previous habits, an allowance of spirits was made her throughout.

There is at present a nearly similar case in the Middlesex Hospital, under the care of Mr. Shaw, which we are the more desirous to mention as we believe that to Mr. Shaw belongs the credit of having been the first English surgeon who adopted the practice. The patient, an old man, met with a severe compound and comminuted fracture of the right leg six weeks ago. The wound was large, and the bone protruded considerably. Repeated attempts at keeping the fractured portions in apposition failed from the undue spasmodic contractions of the gastrocnemius muscle, which, as soon as they were placed in apposition, at once jerked them apart again. Mr. Shaw divided the tendon by a subcutaneous section, after which reduction was accomplished and maintained without difficulty. The man has since suffered much constitutional irritation from the effects of the fracture, around which severe inflammation took place; it is, however, now subsiding, and great hopes are entertained of his ultimate recovery with a natural limb.

The practice has, we believe, been repeatedly adopted, both by Mr. Cooper and Mr. Shaw, as well as other hospital surgeons, and usually with complete success. It must be borne in mind by those who adopt it, that it is necessary to avoid all pressure on the heel afterwards, otherwise a troublesome sore may result.

PATHOLOGY AND PRACTICE OF MEDICINE.

Polypoid Growth in the Heart.

CHRISTOPHER M——, aged forty-seven, an Irishman, and a discharged soldier on pension; formerly served in India; was admitted as a home-patient of the Rochdale General dispensary, May 5, 1852. I visited him the same day.

Symptoms.—Continuous vomiting of two days' duration, the egesta being streaked with blood; no pain, except during the act of emesis; tongue coated with a dense white fur; pulse rapid and very compressible; alvine functions normal. Ascertaining that a few days previously he had received his pension, and that on the strength of it he had been indulging very freely in beer, I judged the case to be one of gastric derangement occasioned by this just-named excess. I sent the following mixture:—Epsom salts, two drachms; hydrocyanic acid, a drachm; camphor mixture, six ounces; half an ounce every three hours. I sent also a small dose of calomel and opium, to be taken when the vomiting should have subsided, as I believed it would.

May 6th.—On visiting the man to-day, I was for the first time informed that on the 3rd instant, during his debauch, he became involved in a quarrel with another man, who, in the scuffle, kicked him over the region of the liver. On making pressure over this organ, there was some indication of tenderness, though not so considerable as to suggest serious lesion. There was no external evidence of injury. The vomiting still continued as incessant as before; the pulse was more laboured; some dyspnœa had come on. There was no cough, nor other pulmonic symptom beyond the dispnœa, to draw attention to the condition of the thoracic viscera. The face was much blanched, and the vital powers apparently fast waning, as if from internal hæmorrhage. All the phenomena, in fact, pointed to the probability of rupture of the liver. I ordered the most perfect quietude to be observed, and sent a mixture containing small doses of opium. I visited him again in the evening; the pulse was fluttering; the respiration more oppressed; the vomiting persistent; the system merging on collapse. There was also some disturbance of the intellectual powers. I ordered bottles of hot water to the feet, and to the epigastrium.

7th.—Nine, A.M.: Pulse a mere thread; extremities cold; breathing much oppressed. He died an hour afterwards.

In connexion with Mr. J. E. Wood, one of the staff of this institu-

tion, and with his kind and valuable assistance, I made the necropsy, seven hours after death :—

No special external appearances, except a slight contusion on the arch of the nose. The thorax and abdomen being opened, the heart was first examined. The pericardium contained several ounces of serum; the heart itself was somewhat hypertrophied. On being removed from its attachments, a dense fibrinous mass was seen to hang from the several pulmonary arteries; the right ventricle being opened, this body was found to terminate in a lash of fibrinous threads, whose delicate extremities were rather firmly connected to the parietes of this cavity, and to the circumference of the auriculo-ventricular valve. In structure it was firm and elastic, nearly resembling tendon; and to complete the likeness, it was enveloped in a sort of theca, which was jagged and torn in places, as if it had been lately separated from its adhesions to the endocardium. Its length was ten inches; its weight 189 grains. At its superior extremity it was expanded into a leaf like process. At about half its length, a process was sent off of some thickness. The walls of the ventricle were of more than moral thickness; the endocardium was hyperhæmatus; the valvular structures of the heart were natural; the pleuræ were almost throughout firmly adherent. The lungs were congested, but otherwise healthy. The liver was enlarged, but in structure healthy. *There was no solution of continuity whatever in any part of this viscus.* The stomach was to all appearance healthy, its mucous coat being, if anything, paler than usual; it contained several ounces of yellowish fluid, that had the odour of malt liquor. The rest of the abdominal organs were free from disease, with the exception of the kidneys, which were enlarged and mottled. The blood was remarkably fluid.

Remarks.—It is evident that the whole of the phenomena were dependant upon the adventitious formation within the heart. The peculiarity of the symptoms, however, and the fact of previous violence having been experienced, tended altogether to put diagnosis at fault. It cannot be doubted that the polypoid growth had occupied for some time the position in which it was found after death, but that its adhesions had prevented its exercising much influence on the circulating current. Its detachment may be accounted for in two ways—first, by the shock resulting from the blows and falls encountered during the fight—or second, (supposing the sickness to have been consequent on over-imbibition,) by the excessive retching accompanying the vomiting. Perhaps both contributed to this effect. I am less inclined to attribute the vomiting to sympathy with the condition of the heart, inasmuch as when

first I visited the patient, I do not remember observing any pulmonic symptoms whatever.

The post-mortem examination was made in obedience to a coroner's order, and the man who had given the kick before spoken of, had been placed in custody. I fully believed that the inspection would have disclosed a ruptured liver; and it seemed highly probable that the inquest would terminate in a verdict of manslaughter. The evidence given, however, being of course in accordance with the facts already detailed, the verdict was the usual one of "Died from natural causes."

A Consideration of some of the Relations of Climate to Tubercular Disease. By W. J. BURNET, M. D., Boston.

There are two prominent facts which have made the subject of the climatic relations of tubercular disease, one under active discussion among the medical men of this country and Europe during the last few years.

These are: first, the almost alarming increase of disease of this nature; and, second, the facilities of travel, so that climate can be easily and cheaply changed. The time has been when only a few thought about distant travel for health. But now, almost every one who at all values his life, can easily put himself in a more genial atmosphere and beneath an almost cloudless sky. With the attention thus directed, the questions are—*what* climate is to be sought; and what are the reasonable expectations as to its effect upon tubercular disease?

Of late there has been published quite a number of works upon the climate of those European and insular countries hitherto quite celebrated as resorts for invalids of this character; and, as the most dissimilar views have been advocated, there has arisen much confusion among medical men as to the correct answer of the questions above referred to. Some, in fact, have become thorough skeptics as to the benefit of any change of climate out of the latitude in which the invalid has been accustomed to live.

From among these works recently published may be mentioned two, viz., that of Dr. Pollock, appearing in the *London Medical Gazette* of last year; and that of Dr. Burgess, not long since separately published. Both are upon the climate of Italy, and are well calculated to lessen the enthusiasm of invalids for a land which has always been made more sunny by the pens of poets than the favor of nature. I have no doubt that the conclusions of these men, and especially those of Dr. Pollock, upon the climate of southern Europe, are correct in the main; and as

they were addressed to the English people, will no doubt lead many English physicians to hesitate before advising their usual migration.

But in this country, a misapplication and sometimes a misinterpretation of these and similar opinions, has led very many physicians to be quite skeptical as to the real benefit to be derived by northern invalids, from a change of residence into the southern and more sunny states. This skepticism seems to be yearly increasing—and there can be but little doubt that it is as mischievous as it is really unfounded. It is certainly quite desirable that clear and distinct opinions should be entertained by northern physicians upon a subject fast getting to be one of such paramount importance. I make this remark, because I think that the reason of their doubts of climatic influence, is plain ; in other words, that the cause of their unfortunate experience is becoming well understood. It is, that the climate has not been thoroughly tried. To make a clear and full statement of the whole matter, I will say that I am convinced that the shifting migratory course, South in winter and spring, and North the rest of the year, usually advised and followed, is an erroneous and mischievous one ; and that if a northern consumptive can reasonably expect any benefit from this change of climate, this benefit will be obtained only from a continued southern residence for several years.

There is a grave error in thinking that, if one goes South in late autumn, and remains there until late spring, and then returns North to pass the summer and early autumn, he keeps himself in the train of favorable climate influences. It is not so ; and the error is concealed in the fact that a summer at the North does not make a southern climate. This leads me to some considerations upon the peculiarities and differences of the northern and southern climates of this country.

As to the New England climate, it seems quite clear, that, taken as a whole, there is something in it highly predisposing to the development of tubercular disease. Not only do we see this disease here constantly peering out from hereditary predispositions, but the cases are quite numerous in which it seems purely indigenous, being engrafted upon an untainted stock. It is true that this may be said of other countries having an intemperate climate, but very far from the extent of what I think is true of New England. Statistics can be produced to show, that, take the whole year through, pulmonary disease—inflammation of the mucous membrane of the air-passages—constitute a very large proportion of the disease here seems to be quite toward the pulmonary organs. Aside from the evidence of general observation, this statement has a very significant support in the fact, that in cases presenting some obscure aspects, the suspicion of the intelligent physician is quickly fastened upon the lungs, and an examination of the chest is made ; thus show-

ing that where outstanding local or temporary causes are absent, one is almost unconsciously led to suspect insidious disease referable to ever-constant general agencies.

An unequal fluctuating climate, in any latitude, tends to produce these effects. But the climate of New England, besides having this inequality and diversity in a very marked degree, possesses other characteristics having a great influence. Its atmosphere is dry and stimulating, and during the greater part of the year of a low temperature considering the latitude. The effect of such an atmosphere upon a sound constitution is highly bracing, leading to a mental and corporeal activity quite inconsistent with endurance and longevity. It is probably not an incorrect opinion that many of the moral and physical peculiarities of New England people, included under the terms enterprise and action, may be traced to these agencies.

In such an atmosphere, the constant vicissitudes of the temperature render the functions of the skin imperfect, thus increasing the liability of congestions of the mucous membrane; and the mucous membrane, from the fact that it is ever in contact with an irritating medium, is generally that of the air-passages. On this account, mainly, the urgency of these conditions is considerably lessened by the use of flannel next to the skin; the importance of which worn in summer as well as winter, is now well recognized.

On the whole, New England climate has little in it that is sedative at any long season of the year. The winters are broken and unsteady, especially so on the sea-board, and it is only in the northern island portions that there is that constant cold which has a far more favourable influence. The character of New England spring weather is too well known to need comment. Nothing could be more uncertain and less reliable. The months of May and June frequently changes places, and one is not sure of warm weather until into July. As for the summer months, it is a great mistake, as I have before said, to suppose that they furnish a climate like that of the South. There is, to be sure, heat enough, but it is unsteady, and during July and August the thermometer not unfrequently falls 30° or 40° in a few hours. Intensely hot as it is frequently in midday, yet at midnight, if one is exposed, it is rare that over-clothes are not the more comfortable.

But a fact more significant than all the rest as to the influence of our summer weather, is that our consumptives do not generally improve in it, on the other hand, they lose ground. This is generally attributed to the depressing influence of the heat. No doubt there is much in this, for the heat is here often very intense; but more is probably due to the sudden and wide changes of temperature. That this is the correct ver-

sion of the matter, would seem to be indicated by the influence of our autumn weather, which is far the best and most genial we have. There is generally a season, commencing about the first of September, and continuing until the early frosts of October, when the weather of New England may be said to be truly fine. The atmosphere is warm and dry, presenting a hazy, quiet aspect, and the light wind is generally from the W. or S. W. It is then that we have those dreamy days that come and go so quietly as scarcely to leave a ripple-mark—reminding one of the sunny skies of the pine-lands of Georgia and South Carolina. Every one, and especially those out of cities, has felt the soothing, sedative influence of this weather.

✓ It is well known that during this weather, our consumptive and other pulmonary invalids improve. The functions of their skin are more active, and the urgency of the cough and all the other pulmonary symptoms is decreased. The expectoration is less purulent, the appetite improved, and the spirits, strength and flesh increased. In many instances the improvement is as unexpected as it is remarkable—and there is often a melancholy pleasure in thus observing this temporary improvement, brightened as it always is by the patient with a thousand delusive hopes.

This short season is the only weather in New England with which I am acquainted, that is really favorable to consumptive invalids.* And in its favourable influence, and at the same time in its resemblance to that of the pine-lands of the South, there may be drawn something more than a hint as to the real agency of southern climate upon diseases of nature. But broad as this hint is, it is not usually taken; or if so, not in time. For many invalids in the second stage of consumption, improved as they have, do not perceive the wisdom in taking means to continue in this same climate, but delude themselves with the hope that they will be well enough to remain North during winter; or, if they conclude to go South, defer it until they are obliged to, having two or three "colds upon their lungs."

The peculiarities of a southern climate as bearing upon its benefit to consumptive invalids, are far from being referable alone to its elevated temperature. I refer here to the alluvial and pine-land portion of Georgia

* The fine weather of New England in June has always been insisted on and highly recommended. But of late years this does not appear to have been true—for it has been unsettled, and often colder and more uncomfortable than May. If one can trust the testimony of elderly people, it would seem that in this and other respects, the climate has changed very perceptibly in the last quarter of a century. Now, they affirm, the winters have not that steady severe cold as formerly, but are more open and broken, running into the spring; and this last, in its turn, usurping a portion of summer.

and South Carolina. It has other characteristics, which, though less well understood, are not the less important as to effects. The atmosphere has a decidedly sedative, soothing influence, which, due to whatever causes it may be, has a very desirable effect upon the mucous membrane of the air-passages—and this effect, once commenced, is not likely to be disturbed by sudden vicissitudes of temperature. There the general tendencies of disease seem to be changed; and that, too, *from the thoracic to the cutaneous and abdominal organs*; and it is through these changed relations that the cure is to be effected. But a fact more worthy of notice than all the rest, is the almost complete exemption from phthisis of the native inhabitants of this section of the country. It is true that consumption is there found; but a careful inquiry has shown that in almost every instance it had been immigrated either directly or indirectly. Other diseases, such as those of a miasmatic character, those of the intestinal canal and its appendages, seem to exist in the place of those of a tubercular nature; and were we better acquainted with that curious yet important subject—the *antagonism of diseases*—we might, perhaps, better understand how these relations are effected.

That these relations of disease are based upon climatic influences, might be here shown in many ways; but I will mention one fact, observed by myself, which is quite indicative. In northern and upland Georgia, the soil and aspect of the country quite resembles that of New England. There, as in New England, the primitive geologic rocks appear; and it has for a long time been remarked, that nowhere South is the climate so much like that of New England as in this section. The diseases follow in the same train, for they are pre-eminently those of the pulmonary organs. Consumption, lung fever, bronchitis, are common, and this, too, at the apparent exclusion of the diseases of the low and pine-land regions.

An additional fact of the same bearing, and which may here be mentioned of upper South Carolina, (and which is quite productive of many diseases) is quite indicative of the fact, that the climate of the mountains is little calculated to shield from the influence of the atmosphere; and thus situated, it is not surprising that it assumes an acute form, exactly the same as that of the lowland, in whom tubercular tendencies are common. The inhabitants, acute pneumo-affections being generally of

a comparatively healthy con-

stitutions, we should naturally infer that its tendency would be toward arresting the development of tubercular disease, and favoring that condition of the general system leading to a permanent cure.

That this is so, I fully believe, and think it can be tolerably well shown, imperfect as the state of inquiry has hitherto been.

But if we sought proof in the results of migratory invalids, our case would truly be a poor one. If climate is to work a change, it is foolish to expect that that change will be effected unless the individual gets acclimated. It is, therefore, to the results of those cases of tubercular disease where the residence has been permanent, that we are to look for a correct version of the matter.

In my intercourse with many intelligent physicians at the South, many cases were described to me, in which individuals from the North, having phthisis in its first stage, had taken up their permanent residence there. Their pulmonary symptoms gradually disappeared, and now they are quite free from them, enjoying a very fair share of health. In the same manner, also, several cases were described to me, in which the disease had far advanced in the second stage—a cavity of small cavities having been produced in one of the lungs. These individuals remained there permanently, settling down into a quiet life. They recovered so as to enjoy tolerable health—the cure taking place, as indicated by physical signs, much in the way Laennec has described, by the partial cicatrization of the cavities, which yielded a blowing, dry, amphoric sound. In one of these instances the young man felt so much restored after a few years, that he hazarded a return to New England for a permanent residence. But in less than a year he was seized with a violent and unexpected hæmorrhage, and died soon after of ordinary phthisis.*

It is to be regretted that statistics upon this subject have not been made out; but as the matter now stands, the conviction left in the mind of the medical inquirer and observer is full and clear.

There is another fact, vouched for by an intelligent physician of Georgia, and which should be mentioned in this place. He affirmed to me that the negroes of Maryland and Northern Virginia, affected and broken down by pulmonary trouble, and perhaps scrofula, as shown in enlarged glands, &c., if sold to the Georgia and other far Southern planters, soon improve, losing their symptoms, quite often recovering, and growing strong and fat.

* In citing these facts, I trust I shall not be misunderstood. I am very far from advocating the doctrine that all who have consumption in the first and second stages, can get well by living permanently at the South; but I do advocate that if benefit in these cases can be reasonably hoped for by this change of climate, this change should be permanent.

I was also struck with the fact of the long duration of phthisis with those negroes of the South, who, from quite ill conditions of life, had contracted the disease. It seemed to run a light, lengthy form, although perhaps fatal in the end. I recall to my mind one instance, where I examined the chest of a negro having tuberculosis of the apices of both lungs, and a cavity in the left one. To the physician with me I declared that he would die in three months. But he affirmed that he would live two to three years, and that, as property, this probability of life would be admitted.

But I need discuss this matter no farther. It now remains for me, in conclusion, to make a few general remarks.

The view I advocate is, that if a consumptive can reasonably expect benefit from a southern climate, his residence there must be permanent and not migratory.

Besides the arguments already adduced in support of this view, it may be worth while to notice the testimony given me by those physicians residing in the winter resorts of northern consumptives. Generally, they say, they (the invalids) do not arrive there until actually driven by the cold weather of the North. As soon as the warm, delightful weather of April has come, and they are, if at all, in a fair way for permanent improvement, they are uneasy about their return North; and the occurrence of two or three quite warm days in succession, soon settles their determination. By early May they have left, looking much better than when they came. The ensuing winter they appear again, but it is evident they have lost ground during their absence; they return home again in early spring as before, and here often is the end of their migrations. Others, having the disease in a more chronic form, appear regularly for many years; but at last are not seen or heard of again.

I am aware that invalids, on going South, expect too much in the way of climate. They picture in their minds cloudless skies over a land of the cypress and myrtle, and which will immediately effect their restoration. I need scarcely say that in this they are doomed to disappointment; and so will it always be, until the opinion is fully recognized—that it is not sunny skies that will alone benefit them, but rather a continuation under the aggregate of the influences of the climate.

At the present day numerous objections are raised by northern physicians against the southern migration. One class disapprove of it on the ground, both of the incurability of the disease, and a disbelief in warm climate, based upon an ill-digested theory, partly chemical and partly medical. Another class, and much the more numerous, although avowing a belief in southern climate, nevertheless quite object to the migration on the ground of humanity. They cry out against what they call the

cruelty of sending people away from the comforts and attentions of home—and that too with a wide possibility to die among strangers. In its place they advise the patient to remain among the comforts of home—occupying a large chamber, which by various arrangements is to have a southern or summer atmosphere.

There is some force in a part of this objection, for sometimes there is great inconsiderateness in urging patients away. But, taken as a whole, it is not valid. Certainly no judicious person would advise the going away of a patient unable to bear the journey, or whose end is not far distant. But the conveniences of modern travel have taken away the former terrors of the transit. The journey now is easy and of short duration, and with mail and telegraph one can feel quite near home. With these conveniences there seems little necessity for the immuration of an invalid in a chamber—obliged all the while to take sedative medicines for cough—and however many and complete the home-comforts, yet in a fair way to depress the nervous system, and enervate the whole body.

In no disease is there so much danger of over-medication as in consumption. Experience has shown, that as a disease primitively of the nutrition, our object must be to strengthen the nutritive function, and to spare every unnecessary dose of medicine into the stomach, the tone and power of which, must be carefully nursed by proper food. I need scarcely say that these relations cannot be carried out by a winter's residence at the North, however favorable the circumstances.

In cases where the symptoms are not immediately threatening, and the patient has remaining considerable physical power, so as to be about in an easy way without fatigue, it will generally, I think, be judicious to advise, at least a winter's residence at the South, where one can be under the influence of pleasant days, and drink in balmy air instead of cough mixtures.

As to a summer's residence at the South, beside the objection of its being unnecessary, there is another generally urged—the enervating effect of its excessive heat. This objection is not well founded, and rests more upon ideas of a more southern latitude than any thing else. As to degree of heat, the mercury certainly rises higher in the New England than in the Southern States. For in these last it rarely exceeds 90°, even in the hottest season. It is true that the hot season is long, and, in the low sandy regions, its effect is quite depressing. But possessing such a variety of climates as does South Carolina and Georgia, the invalid need not thus be endangered, for there are resorts midway between the low and the mountainous parts of both of these States, where the summer

climate is indescribably fine, having, perhaps, no equal in this or any other country. *

But in advocating the necessity of a permanent southern residence for the consumptive, I should be willing to do so only with some exceptions. There is a class of patients, generally of so-called lymphatic and bilious temperaments, who bear heat badly ; and what they gain in a decrease of local symptoms, they lose in general strength. I need scarcely say that this class of cases everywhere is the most intractable, and least amenable to treatment. It belongs to the judicious physician to perceive the relations of such cases, and advise accordingly.† As to variety of climate and climatic advantages, the United States are certainly more highly favored than any country. If this fact is known generally, it is not appreciated. No invalid need cross the water ; for in our own borders, among our own people, who speak the same languages as ourselves, we can, by a journey of less than eighty hours, be in a clime certainly not surpassed by any of the old world. Dissatisfied as the English are fast getting with their “ sunny Italy,” or their “ beloved Madeira,” it may not be regarded improbable that, when the communication shall have become easier and more direct, they will exchange these for the sunnier spots of Carolina and Georgia.—*Boston Medical and Surgical Journal*, 13th September, 1852.

SUBSTITUTE FOR MERCURY IN SYPHILIS.

M. ROBIN lately brought before the Academy of Medicine of Paris ten cases treated by M. Vicenti which would prove the efficacy of bichromate of potash as an anti-syphilitic agent. From the facts, of which M. Robin gave a detailed account, he draws the following conclusions:—1. Bichromate of potash is now ascertained to be an anti-syphilitic agent. 2. The salt being very soluble, acts without loss in extremely small doses, the treatment being therefore shorter than when mercury is used. 3. Bichromate of potash does not in general produce salivation. 4. The only disadvantages hitherto noticed are nausea and vomiting when the salt is taken fasting ; but these unpleasant effects do

* Such is the character of climate of Greenville and its neighborhood in South Carolina, and of Stone-Mountain, in Georgia. In fact, there can be little doubt that the climate of both of these States is far better in summer for invalids than in winter.

† In this connection I may make a remark having an unrestricted application. It is, that in a disease so precarious as consumption, if an individual residing at the South is doing well, the wisdom of letting well alone and remaining there, should be recognised, however late in spring the time may be. They should not act up to the dictates of a common theory, before they have tested its value in their cases, by individual experience.

not take place when the medicine is administered a little time after the digestion of a meal, and especially when it is associated with opium. 5. It is of much use in neuralgia, and though it may produce asthenic effects, it is by no means deleterious. 6. Its exciting properties may render it useful in indolent ulcers, in more or less strong solutions; as also in syphilitic sore throat, in the form of gargle. 7. As the ten patients who have taken the bichromate have not experienced the least unpleasant symptom, even by using very large doses for a protracted period, the new anti-syphilitic agent is now proved to be of greater value than the salts of mercury, which latter may become reduced in the economy, whilst the bichromate is irreducible under the same circumstances, and is so soluble as to be easily eliminated. Two of the above mentioned cases were treated in 1850 and 1851, and no kind of relapse has been noticed.—*Lancet*.

Hémiplégie traitée avec succès par le sulfate de strychnine par le Dr. CHS. DELÉRY.—

Je fus appelé dans les premiers jours de Janvier, pour donner mes soins à Mme... âgée d'environ 45 ans. Je la trouvai étendue sur son lit avec une paralysie de tout le côté droit, paralysie survenue presque subitement. La peau était chaude, le pouls fréquent et dur, la figure fortement colorée. La malade se plaignait de céphalalgie et de *bouffées* de sang qui l'incommodaient fort. La langue était déviée, la parole embarrassée, mal articulée, et l'intelligence lente et comme endormie. Il n'existait, du reste, qu'une paralysie de mouvement, la sensibilité étant parfaitement conservée.

Je recommandai, le soir même, une application de douze sang sues aux pieds et un purgatif salin pour le lendemain de bonne heure. Le lendemain, dans la matinée, Mme*** n'avait pas de fièvre et se sentait soulagée. Mais le soir, le mouvement fébrile reparut avec violence, accompagné des mêmes symptômes que la veille. Il y avait une intermittence bien marquée. Je me contentai de prescrire un bain de pieds sinapisé, ainsi que l'application de sinapismes promenés sur les membres inférieurs. Le troisième jour, je fis prendre à la malade, dans la matinée, 25 grains de sulfate de quinine qui prévinrent le retour de la fièvre; le quatrième jour elle en prit encore 15 grains. La fièvre était dissipée, mais il n'était survenu aucun amendement dans les membres paralysés. Dès lors je commençai l'usage du sulfate de strychnine à la dose d'un huitième de grain, soir et matin, sans effet apparent le premier

jour. Le lendemain, la malade en prit trois doses et ressentit, dans les membres, quelques légers mouvements convulsifs.

Pressé d'obtenir un effet plus marqué, j'arrivai rapidement à un quart de grain deux fois dans le jour, sans obtenir, toutefois, le résultat que j'espérais. Mais il arriva que sa fille, qui remplissait auprès d'elle l'office de garde-malade, lui donna, par un malentendu, deux paquets à la fois. Quelques temps après elle fut prise de convulsions violentes dans tous les membres et dans les muscles de la face, avec renversement du cou en arrière. Ces convulsions durèrent environ une heure et se calmèrent. La malade fut remise à un quart de grain et, à notre grande satisfaction, nous ne tardâmes pas à voir les mouvements revenir, d'abord au bras, puis à la jambe paralysée. Je dois noter une particularité qui s'est offerte, et qui tient, sans doute, à l'effet du médicament. La malade, pendant plusieurs jours, ne put régler les mouvements de la main dont la *force de retour* semblait être décuple de la force normale. Quand elle saisissait un objet, elle le serrait involontairement, et ne s'arrêtait qu'aux limites de l'impossible. Cette contraction convulsive des muscles était douloureuse au point d'arracher des cris à la malade. Ce phénomène bizarre se manifesta pendant trois ou quatre jours seulement.

Une autre circonstance importante à signaler, c'est qu'il survint à la fesse, du côté paralysé, une gangrène large et profonde qui fut suivie de la chute d'une escare proportionnée à l'étendue de la partie sphacélée. L'énorme plaie qui en résulta m'inspirait des inquiétudes d'autant plus vives, que c'était pendant les grands froids de Janvier qui rendaient tout pansement difficile et dangereux. Je fis tenir sur la plaie un matelas de charpie saupoudré d'une poudre composée de camphre et de quinquina. Au bout de deux semaines, environ, la malade put marcher avec des béquilles. Depuis lors, sa santé s'est complètement rétablie, et elle n'éprouve aucune faiblesse dans les membres qui ont été frappés de paralysie.—*L'Union Médicale.*

MATERIA MEDICA.

HOSPITAL SULPHATE OF QUININE.

MR. EDWARD HERRING has introduced a preparation under this name, consisting of disulphate of quinine only partially purified. In its medicinal properties it is said to differ but little from the ordinary disulphate. It has a brownish colour, and is of course not admissible as a substitute for disulphate of quinine in general dispensing, but it has been tried in hospitals and dispensaries, and by some medical men who dispense their

own medicine. The preparation is recommended on account of its economy. The final purification and discolorization of the salt being attended with some expense, the manufacturer is enabled to offer it in a partially purified state at a considerable reduction from the price at which it can be sold when purified in the usual way. The amount of its impurity must be ascertained before its real value can be estimated. It may be a question whether the recognition of a preparation so imperfectly purified might not open the door to some abuse.

London Pharmaceutical Journal.

MISCELLANEOUS.

ON THE BOUQUET OF WINE.

BY DR. F. L. WINCKLER.

In his recent experiments on the vegetation of plants, Winckler has arrived at very satisfactory results explanatory of the specific odour peculiar to the various sorts of wine produced in different districts, which is known by the expression of "*blume*" or "*bouquet*."

If about half-a-pint of any sort of grape wine be evaporated in a porcelain vessel by means of steam, until not only all the spirits of wine, but also the ænanthic ether, and in general all parts volatile at this temperature (80° R.) are evaporated, a thickish liquid of more or less dark colour, and of a peculiar, pleasant, acidulo-vinous odour remains behind, from which, after it becomes cold, a greater or lesser quantity of tartar separates. By diluting this liquid with water, so that the weight of the solution is about a quarter of a pound, and subjecting the solution with an equal weight of fresh burnt lime to distillation, there is obtained even during the slacking or hydrating of the lime a very agreeable and intensely smelling distillate, which like ammonia, is a strong base, and forms with acids neutral salts, possessing in a high degree the odour corresponding to the so-called "*bouquet*" of the employed wine.

This fact suggested the idea that this compound may be in a similar manner contained in the wine itself, and the supposition was fully corroborated by experiments.

If the residuary line of the evaporated wine be treated with water after the conclusion of the distillation, the solution filtered, and the filtrate distilled with a small quantity of moderately strong sulphuric acid, a new volatile acid of a highly specific, almost balsamic odour is obtained, which being neutralized by the necessary quantity of the first

obtained nitrogenous base, yields a neutral volatile salt, which possesses the peculiar odour ("bouquet") of the employed wine in the highest degree. There is, therefore, no doubt that this compound is not only contained as such in the wine, and constitutes the "bouquet," but that it is this nitrogenous compound which determines the chemical constitution, the durability, and all those changes to which it is subject by keeping.

Although for the present only six different sorts of red and white grape-wine from various districts of the Grand Duchy have been examined, yet the results are so uniform and decisive, that there exists no doubt of their correctness. The contrast was very striking on comparing the "bouquets" of a fine red Oeringelheim wine of 1846 with a very excellent sort of white Bergstraser of 1846, and with one of the worst qualities of 1851 from the latter district. The two first sorts yielded quite a different bouquet of a very pleasant odour, whilst the latter betrayed but too distinctly the year and quality by its unpleasant earthy smell.

Beer also contains a considerable proportion of nitrogen, which can be obtained from it in the same way as from the wine. It is this component from which beer obtains its importance as a nutrient.

The author has, moreover, found, that the colouring matter of wine, and chiefly that of red wine, is closely connected with this nitrogenous compound; that most, and perhaps all, fresh vegetable juices contain nitrogen, and undergo during the process of vegetation changes which are analogous to the fermentation of wine; that the fragrantcy of the vine flowers, and very likely also the odours of most flowers and leaves are dependant on similar compounds, which are characteristic, and of a peculiar chemical composition in each genus of plants—*Jahrbuch f. pract. Pharmacie*. Bd. xxv., Hft. 1. p. 7.

London Pharmaceutical Journal.

Canada Medical Journal.

MONTREAL: FEBRUARY, 1858.

Our readers may recollect that in a late number of this Journal we announced our intention of discontinuing it, unless our readers came forward with their subscriptions before the end of the year. We have now to announce that as the subscribers have not paid up, in the manner that we anticipated, we shall not issue the first number of the second volume until April, when it will appear at the same time with the number for that month. We have been induced to adopt this measure, from the difficulty we have experienced in convincing our readers that to support a Medical Journal, money is *really* necessary, and many of them may think that because the monthly visit of the Journal brings them no greater trouble than to send to the Post Office for it, or expense, than to pay the postage, that the publication entails very little expense or trouble upon its managers. We beg to disabuse their minds on this point—Journalism is both expensive and troublesome—and though we cheerfully undergo the latter, we have no idea of encountering the former. In such matters, plain speaking is always best, and we give our proposal to the profession as follows:—We will go on with the “Canada Medical Journal” if you pay your subscriptions before the 1st of next April—if you do not, the Journal must cease. Our subscription list shows that the revenue of the Journal, if paid up regularly, would amply cover all expenses, and even admit of the editors illustrating some of the articles with wood cuts, &c. Is it not then discreditable to the profession of this country, to allow a periodical of such a nature to languish for want of support? We were told, and indeed we ourselves were of the same opinion, that our Journal should be opened to our French Canadian brethren. We complied with the request, and yet we have had few papers from them. They cannot complain that they were excluded, nor can our British readers complain that we gave them too many French articles. We have received from numerous correspondents expressions of their approbation

with the manner in which the periodical was conducted and our exchanges give abundant evidence that even in Canada, articles upon different departments of medicine are written, worthy of being copied into the best of the British and American Journals. We were also anxious that our Journal should serve as a medium of communication between our brethern situated distantly apart from one another, and also as a means for uniting in one common effort for the diffusion of knowledge amongst us, the practitioners of British and French origin. How far we have succeeded we leave our readers to decide. Whilst, avoiding personalities we did not shrink from our duty in exposing quackery, and however disagreeable to our feelings, we have felt called upon to admonish some of our brethern, who, we believed, were forgetting their allegiance to the Profession, and had commenced to coquette with downright quackery.

In conclusion, we beg to thank very sincerely, our friends, who in compliance with our request have come forward with their subscriptions, and we hope that those who have not yet done so, will now exhibit some professional zeal and enable us to conduct the "CANADA MEDICAL JOURNAL."

Physiological Action of the fifth pair of Nerves. Plagiarism.—It is fresh in our own memory, as we are certain, it must be also in that of most of our readers, that, in the slashing review of Mr. Howard's work on the Eye, in the pages of the British and Foreign Quarterly, the idea was ridiculed of issuing an independent treatise, in this city, which was designated as on "the confines of civilization," while the Author's views, original as they were on many points, particularly as regards the Physiological endowments of the fifth pair of nerves, were treated with most consummate disdain. It was truly unfortunate for Mr. Howard, as we could not help thinking at the time, that he had no association with the clique, of the brains of one of which that production appeared to be the effusion, saturated with concentrated venom. Elated with a metropolitan position the reviewer considered, that *here*, we ought to be content with calmly looking on, and that a periodical contribution, is the utmost to which we ought to aspire. We said little at the time, although we thought much.—Few as have been the original publications of this colony, we can remember none of which we have reason to be ashamed, much less can we perceive any just reason why an attempt at their publication should be frowned down, or the publication itself despised, because Co-

lonial. Our geographical position may be somewhat nearer the Esquimaux, than that of London or Dublin, yet we have still to learn, that originality of thought, like temperature, is influenced by latitude, or that the misty murkiness of those cities is congenial to it in any especial way. Like a celebrated city of old, our own with its productions may be equally contemned, and become proverbially so ; still good may occasionally emanate from it, as the following may witness.

On the 7th October last, Mr. Pritchard, of Bristol, read a paper at a meeting of the Bath and Bristol branch of the Provincial Medical and Surgical Association, "on extraneous substances in the eye," in which the following passage occurs.*

There is another point of resemblance, which is one of particular physiological interest. It is commonly taught and believed that the optic nerve is the only afferent nerve to the third or motor nerve of the iris—i.e., that the pupil contracts only when the optic nerve feels the impression of the light, and takes it back to the brain, sending the message to contract along the third nerve through the ciliary ganglion to the iris. Persons with an extraneous substance adherent to the cornea of one eye, almost invariably have that pupil more contracted than the other, notwithstanding the fact that the eye is kept more closed. The explanation of this is, that the fifth nerve distributed on the lids, feels the irritation, and acts as an afferent nerve to the iris, which immediately contracts. I some time ago brought forward a proof of this fact, or of one exactly similar in nature, from the Blind Asylum Report. Two other instances, have come under my notice recently. A girl completely blind from amaurosis after fever, and unable to distinguish the least light, was exposed to the rays of the sun. I saw the pupils of her eyes instantly contract, as in a seeing eye, and she said that she knew she was in the light from the sensation. With another blind person, whose eyes were completely sunk, and where there was no perception of the light, I performed the same experiment. She had no iris to contract, but she began to wink her eyelids, and the tears began to flow from the weakness produced by a bright light, exactly as would happen in a seeing person exposed to the same influence. These facts prove beyond question that the fifth nerve *feels* the light and acts as an afferent nerve to the iris and eyelids as well as to the optic nerve.

In this quotation, it will be perfectly evident that Mr. Pritchard is propounding a "novel" theory in his own language, for which he ostensibly claims the originality, in as much as he most carefully eschews all mention of others who may have preceded him in the same walk. But how stand the facts of the case.

In Mr. Howard's work, published in 1850. On pages 48 and 49, the following remarks are made on this very subject :—

Among the many offices of the ophthalmic branch of the fifth, I believe it to be the protector nerve of the eye ; and here I conceive the following very important question arises, viz. :—

Does it protect the eye in any other way, than by discovering bodies when in con-

* Dublin Medical Press. Nos. 724 Page 309.

tact with that organ, and thus exciting its involuntary motions, for the purpose of rejecting the foreign body ?

I hold that it does, and my views will be explained presently. There is an involuntary motion of the eye for its protection, independent of the fifth nerve, which is the action produced by sight ; danger is seen to approach the eye before it touches it, and as soon as received, by the sensorium, it issues its mandate through the portio dura (which is the motor nerve of all the muscles of the face) to the orbicularis palpebrarum, which immediately closes the lids to ward off the approaching danger. But when notice of danger is conveyed by contact upon the eye or lashes, the muscle will contract in precisely the same way, the impression having being borne to the sensorium by the fifth, and the reflex action accomplish through the portio dura.

I shall now endeavour to explain in what manner I believe the fifth to be a further protection to the eye, in addition to the modes just detailed. I hold that the ophthalmic branch of the fifth pair of nerves preserves the retina from more light than it is able to receive without injury ; and this is caused by this branch being sensitive to the stimulus of light, independently of the retina. This is a novel statement, but I think I can sustain it by facts. If such be not the case, how, I would ask, can we account for contraction and dilatation of the pupil in persons who are totally blind, whether owing to paralysis of the optic nerve or retina ? If the iris were dependant for its action upon the reflex stimulus from the retina, this could not be the case ; for the amaurotic retina, it must be remembered, is incapable of discerning even the very strongest light.

An objection that may be started against this theory is, that in the majority of cases of amaurosis, the iris is motionless and the pupil fixed. Such, truly, is the case, but we must call to mind the many different causes which produce amaurosis. The cause may be injury or derangement of the fifth nerve itself, or even of the third. How often do we see this caused by wounds on the eye-brow, eye-lid, or forehead. Supposing the cause to be paralysis of the optic nerve or retina, what is there more likely, than that the same disease should also frequently cause derangement of the lenticular ganglion, or of either the third or fifth nerve, or both ? Again why does light give pain in conjunctivitis, or such excruciating agony in strumous ophthalmia ? The retina surely can have nothing to do with it. But it has been said, the contraction of the pupil gives the pain, because, that' when the application of belladonna dilates the pupil, the patient is relieved. I certainly cannot understand how contraction of the pupil can give pain ; I am rather inclined to think that it is the pain which causes the contraction of the pupil ; and that in the use of the belladonna its application removes the morbid irritability of the fifth pair of nerves, and the pain being relieved the pupil dilates. This can be proved as follows : In strumous ophthalmia, instead of using belladonna, let the irritability of the fifth be removed by the application of nitrate of silver to its external branches, in the integuments of the superior palpebræ ; after which it will be found that when the pain has been assuaged, the pupil will be dilated : now, certainly the nitrate of silver has no specific power over the iris ; it can therefore only dilate the pupil indirectly, that is, by relieving the pain of the fifth nerve.

That pain causes the pupil to contract is evident from the fact. That in couching for cataract, the pupil having been previously well dilated with belladonna, no sooner does the operator commence to pierce the coats of the eye, than the pupil begins to close, and before the operation is completed, he finds it much more contracted than he desires. But how is the pupil contracted by the stimulus of light ?

The answer is, that the iris receives sensation from the ophthalmic branch of the fifth, and motion from the involuntary branch of the third; branches of those two nerves, form the lenticular ganglion, which in turn supplies the iris with nervous power in addition to that furnished by the two branches given off from the nasal branch of the fifth. Hence it is clear, that the iris is supplied with both a sensitive and an involuntary motor nerve, that the stimulus of light on the iris is borne to the sensorium through the fifth nerve, and that the sensorium issues its commands through the third, which causes the involuntary action of the pupil, thus it is that the iris is found to possess all the properties of an involuntary motor nerve.

The views entertained by Mr. Howard, and which we have thus fully quoted from his publication, had been promulgated nearly three years previously, to the issue of his work from the press and they will be found in a paper in the Physiology of the Ophthalmic branch of the fifth pair of nerves, published in the third volume of the British American Journal, page 197 and seq., so that they can now scarcely be deemed recent, how "novel" so ever they may appear.

We trust that the foregoing remarks will secure attention of the theory in proper quarters. We desire nothing but justice to all parties. The similarity is too striking to permit us to conceive that the idea is a purely original one on the part of Mr. Pritchard. We desire to act fairly by that gentleman, yet there is a something in his proceeding which demands explanation, and a something, which we shall not yet characterize, but which should be severely denounced.

Syphilitic Diseases, their Pathology Diagnosis, and Treatment, &c. By JOHN EGAN, M.D., formerly Surgeon to the Westmoreland Lock Hospital, Dublin.

We have just received by mail this excellent treatise. We have only had time to read a few of its chapters, but from what we know *personally* of the talented author, his industry, and the extensive opportunity he has enjoyed for cultivating this branch of Medical Science, we feel that we shall not compromise ourselves in strongly recommending it to our readers, as the best and plainest treatise with which we are acquainted upon this difficult and but little understood branch of practice.

FRENCH MEASURES AND WEIGHTS.

As it is our intention to publish, from time to time, interesting articles selected from the French Medical Journals, we have great pleasure in acceding to the request of one of our esteemed confrères, in inserting the following Tables, extracted from the last edition of *Malgaigne's Surgery*. From it, the Practitioner in this Country will be enabled to appreciate the quantities of the different remedies mentioned in the French Prescriptions.

MEASURES OF LENGTH.*

New Measures.	Approximate Value.	Exact Value.		
		Feet.	Inches.	Lines.
1 Millimètre.	1 Half-Line.	0	0	0.448
1 Centimètre.	4½ Lines.	0	0	4.488
1 Décimètre.	8 Inches 8 Lines.	0	8	8.380
1 Mètre.	8 Feet 1 Inch.	8	0	11.296
Id Measures.	Approximate Value.	Exact value.		
1 Line.	2 Millimètres.	2 Millim.		256
1 Inch.	8 Centimètres.	27		072
1 Foot.	82 Centimètres.	824		864
1 Ell (<i>aune</i>).	1 Mètre 18 Centimètres.	1188		
The English Inch.	2½ Centimètres.	25 Millim.		899
The English Foot.	80 Centimètres.	804		794
The Yard. (3 Feet.)	91 Centimètres.	914		888

MEASURES OF WEIGHT.

New Measures.	Approximate Value.	Exact Value.			
		lbs.	oz.	gros.	grs.
1 Centigramme.	½ Grain.	0	0	0	0.19
1 Décigramme.	2 Grains.	0	0	0	1.88
1 Gramme.	20 Grains.	0	0	0	18.82
10 Grammes.	2½ Gros.	0	0	2	44.28
100 Grammes.	8 Ounces 2 Gros.	0	8	2	10.80
1 Kilogramme.	2 Pounds.	2	0	5	85.15
Id Measures.	Approximate Value.	Exact Value.			
1 Grain.	5 Centigrammes.	0 Grammes			088
1 Gros.	4 Grammes.	8			82
1 Ounce.	80 Grammes.	80			59
1 Pound.	500 Grammes.	489			50

* The following table shows the exact relation between the new French and the English Measures of Length and Weight.

Measures of Length.	
Mètre, the 1-10,000,000th part of the arc of the Meridian from the pole to the equator.	{ 89.870788 inches. 3 280899 feet. 1.098688 yard.
Décimètre, 1-10th of a mètre	{ 8.987079 inches.
Centimètre, 1-100th of a mètre	{ 0.898708 inch.
Millimètre, of a 1000th mètre	{ 0.08987 inch.
Measures of Weight.	
Kilogramme, weight of one cubic décimètre of water of the temperature of 89° 12' Fahr.	{ 2.6808 lb. troy. 2.2055 lb. avoirdupois
Gramme, 1-1000th part of a kilogramme.	{ 1.5488 grains troy. 0.9719 scruples.
Décigramme, 1-10,000th of a kilogramme	{ 0.082 ounce troy. 1.5488 grain troy.
Centigramme, 1-100,000th	{ 0.1548 grain troy.

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